Lectures
ON THE
PHYSIOLOGICAL PATHOLOGY OF THE BRAIN.

Delivered at the Royal College of Physicians of London, July, 1876,

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LECTURE II.[1] — PART I.

ON PARALYSIS LIMITED TO A LIMB OR TO SOME MUSCLES.

Objections to the views of localisers as regards centres for voluntary movements of the arm and of the leg — Facts showing that a lesion in the anterior lobe, or in the posterior lobe, or in the optic thalamus, can produce paralysis either of the arm or of the leg alone.

MR. PRESIDENT AND GENTLEMEN,—The argument I employed in the concluding part of my first lecture is of so great an importance that I must revert to it. I have already stated—and, indeed, every practitioner who has seen many cases of disease of the brain knows full well—that paralysis of the arm alone may be due to a lesion located in almost any part of the brain. I have already given some cases in support of that statement. It is, however, of the greatest importance to insist on the demonstration that a paralysis of the arm or of the leg alone can be caused by a lesion located in most various parts of the brain. If the views of the localisers, who have followed up the track opened by the experiments of Fritsch and Hitzig, were true, we would find that lesions in certain parts of the surface of the brain, or in the white substance connecting those parts with the spinal cord, are alone able to produce a paralysis of voluntary movements in the arm, and that lesions of certain other parts alone also are able to produce hemiparaplegia (i.e., the paralysis of a leg). The diagnosis of locality of disease would be then very much simplified. Unfortunately we find, on the one hand, as I will show by many facts, that a lesion in parts even at a great distance from the pretended psycho-motor centres and their bonds of union with the base of the brain, can produce paralysis of either the arm or the leg alone, and, on the other hand, that a destruction of the pretended psycho-motor centres, or of the pretended voluntary motor track, can take place without the appearance of paralysis.

When we remember that for a long time there were men of eminence who considered the optic thalamus and the posterior parts of the brain as being the centres for the voluntary movements of the arm, and the corpus striatum and the anterior parts of the brain as being the centres for the voluntary movements of the leg, we at once recognise that there must exist facts on which those views were grounded; and so there are. Cases favourable to such localisations have been recorded not only by those pathologists who admitted those views, but also by many others. Indeed, I may go so far as to state that the erroneous views of Saucerotte, Foville, Bouillaud, and others, concerning the seat of the will-power for the movements of the arm, were better supported by facts than are the views of Fritsch and Hitzig, and their followers. There is no doubt, as I will show hereafter, that a lesion of the optic thalamus and the posterior cerebral lobe produces paralysis of the arm alone, more frequently than lesions of other parts of the brain, including the part considered as the psycho-motor centre of that limb by the localisers of our day. But it was certainly quite wrong to draw from the relatively greater frequency of paralysis of the arm alone in cases of disease of the optic thalamus and of the posterior lobe of the brain, compared with cases of disease of other parts of that great nervous centre, the conclusion that the thalamus and the posterior lobe are the centres for the movements of that limb; and it is certainly just as wrong to draw a similar conclusion, attributing that function to a part of the surface of the brain, from the mere existence of some facts showing that a destruction of that part can be followed by a paralysis of the arm. The proof of correctness of either of these two suppositions could come only if in all cases of destruction of the pretended centre a paralysis of the arm had been observed. It is not so, as I will show hereafter. Besides, the very fact that there are cases supporting both suppositions is a great reason against our admitting either; as if disease in the posterior lobe or the optic thalamus sometimes produces paralysis of the arm only—the convolutions supposed to be the centres for the movements of that limb remaining normal—it is clear that the view about these convolutions is thereby seriously damaged; and, on the other hand, if disease in Fritsch and Hitzig's psycho-motor centre sometimes causes paralysis of the arm alone, while the optic thalamus and the posterior cerebral lobe remain healthy, it is clear that the view of Saucerotte and others about these last parts can hardly be maintained any longer.

I will now proceed to give facts, and then I will draw the conclusions that seem to flow out naturally from them as regards the question of the mode of origin of paralysis.

1. *A lesion of the anterior lobe of the brain can give rise to paralysis of the arm or of the leg, alone.* — I have already, in the first lecture,[2] given some cases showing that a lesion of the anterior lobe can produce paralysis of the arm alone. To these cases I might add a great many. I will only cursorily mention nine or ten. Among cases of tumour I will give the following ones: (1) paralysis of the right arm, tumour size of a walnut in the anterior extremity of the left hemisphere, under the dura mater;[3] (2) paralysis of the right arm, tumour in the left anterior lobe;[4] (3) paralysis of the right arm, sarcoma size of walnut near the base of the left anterior lobe.[5] Among cases of inflammation, abscess, or softening I will quote the following: (1) paralysis of the left arm, softening of the middle part of the right anterior lobe;[6] (2) paralysis of the right arm, adherence of the dura mater to the arachnoid and of the arachnoid to the pia mater and the brain, at the level of the anterior lobe, which is transformed into a yellow pulp;[7] (3) paralysis of the left arm, vast abscess in the right anterior lobe.[8] Among other cases, I will mention one of wound of the anterior lobe and one of hæmorrhage: (1) paralysis of the left arm, wound of the first and third frontal convolutions of the right side;[9] (2) paralysis of the right hand, slight hæmorrhage in the middle and posterior part of the left anterior lobe, in front and on the side of the corpus striatum.[10]

These facts are decisive against Saucerotte's view that the anterior lobe is one of the centres for the movements of the leg. Some of them are as decisive against the view of Fritsch and Hitzig, but two or three of them may be in harmony with this last view. What comes out clearly, however, and independently of any theory, is that a lesion occupying either the most anterior part of the brain, or the middle and posterior part of the frontal lobe or its base, or its side (case of Huguenin's), can produce a paralysis limited to the arm. But the same frontal or anterior lobe can also produce paralysis limited to the leg. Such was the case in a patient of Dr. R. Bright,[11] attacked with sclerosis of the right anterior lobe, also in a case of hæmorrhage in the right anterior lobe in a patient of Serres,[12] and also in a case of inflammatory softening and hæmorrhage in the left anterior lobe in a patient of Boinet.[13] It is clear from these facts and many others that the anterior lobe, and, indeed, sometimes that just identical parts of that lobe, can produce

[1] The first lecture appeared, in ten parts, in THE LANCET from July to October, 1876.

[2] See THE LANCET, October, 1876, p. 528.
[3] Recherches Anatomico-pathol. sur l'Encéphale, par F. Lallemand (Paris, 1834), vol. iii., p. 10.
[4] Boudant in Journal Univ. et Hebdom. de Méd., &c., vol. v. (1831), p. 245.
[5] Biermer in Symptomatologie und Diagnosis der Hirngeschwülste, von Dr. P. Ladame (Würzburg, 1865), p. 208.
[6] Durand-Fardel, quoted by Gintrac, Cours Théorique et Clin. de Pathologie Interne (Paris, 1809), vol. viii., p. 299.
[7] Lallemand's work just quoted, vol. i., p. 146.
[8] Antoine Petit in Lallemand's work, vol. i., p. 506.
[9] Huguenin in De la Localisation dans les Maladies Cérébrales, par le Dr. R. Lépine (Paris, 1875), p. 143.
[10] Gintrac, loc. cit., vol. viii., p. 124.
[11] Reports of Medical Cases, vol. ii., p. 355.
[12] Traité d'Anatomie Comparée du Cerveau, vol. ii., p. 661.
[13] Bulletins de la Société Anat., 1834, p. 136 et seq.

either a paralysis of the arm alone or a paralysis of the leg alone. This, of course, is quite in opposition to the views of localisers, but my principal object is not to fight against these views—it is to establish that paralysis does not appear in consequence of the loss of function of the part the autopsy shows to be diseased, but that it comes through variable influences of irritation of the diseased part or its neighbourhood. Certainly the facts I have just mentioned, showing that paralysis may appear either in the upper or in the lower limb from a lesion in the same part of the brain, give great support to what I wish to establish.

I now pass to the study of another part of the brain.

2. *A lesion of the posterior lobe of the brain can give rise to paralysis of the arm or of the leg alone.*—I have already mentioned a remarkable case of Rostan's,[14] in which the right arm was paralysed for fifty-eight years, from disease of the left posterior lobe of the brain having entirely destroyed that lobe. A great many cases are on record showing that a lesion located in the posterior lobe can produce a paralysis of the arm alone. For this demonstration, as in most other instances, I will give only a number of the most decisive facts.[15] In three cases of abscess of one of the posterior lobes published by Bouillaud[16] there was paralysis of only one arm. Rostan[17] gives a case of sclerosis of the posterior lobe having caused a paralysis only of the arm. Dan de la Vauterie[18] reports a case of inflammatory softening of the posterior and inferior part of the left hemisphere having produced only an incomplete paralysis of the right arm. Decisive cases of hæmorrhage in the posterior lobe having caused paralysis nowhere else than the arm are recorded by Andral,[19] by Serres,[20] by Durand-Fardel,[21] and others. Tumours also have sometimes, when located in the posterior lobe, caused paralysis of the arm only. Bouillaud[22] gives a case of cancer of the left posterior lobe having caused paralysis of the right arm.

The cases on record of paralysis of the leg alone from a lesion in the posterior lobe of the brain are not so very decisive as those of paralysis of the arm. A good case, however, was long ago given by an able surgeon, Méhée de la Touche.[23] The posterior part of the brain and the cerebellum on one side having been injured by a traumatic cause, there was paralysis of the lower limb on the opposite side. In a case of Albers, of Bonn,[24] the right leg alone had been paralysed from a greenish softening of the white substance in the posterior third of the left hemisphere. De Castelnau[25] has recorded a case of abscess, three inches long, situated above and behind the left lateral ventricle, almost entirely in the posterior lobe, having caused at first only a paralysis of the right leg. In a most interesting case of Duplay's,[26] a patient was attacked with apoplexy followed by complete paralysis of the left lower limb, the arm being only temporarily paralysed. There was a hæmorrhagic cavity in the right posterior lobe, which was softened. The ramollissement extended to the right optic thalamus, which, as also the right corpus striatum, contained a small hæmorrhagic cavity. Another cyst existed in the upper and middle part of the left hemisphere.

The supposition of Saucerotte as regards the location of the centre of the will-power for the arm finds support in the cases in which a lesion in the posterior lobe has produced paralysis of that limb, but it finds a decided contradiction in those cases in which a lesion of that lobe, instead of causing paralysis of that limb, has produced it in the leg. In the same way—but with very much greater power, if the views of Fritsch and Hitzig and their followers can at all be made to agree with one or two of the four cases I have mentioned of paralysis of the leg due to disease located chiefly in the posterior lobe—these views are in absolute contradiction to the large mass of cases in which a lesion of the posterior lobe has produced paralysis of the arm alone.

From the facts I have mentioned, showing that a lesion of the posterior lobe can produce paralysis either of the arm or of the leg alone, it seems clear that, as I maintain, paralysis is not to be considered as an effect of the loss of function of the cerebral organ we find diseased or injured, as we cannot admit that in one individual a certain part of the brain has a special function, while in another individual it has quite a different one.

3. *A lesion of the optic thalamus can give rise to paralysis of the arm, or of the leg, alone.*—The number of cases of lesion of the optic thalamus having caused paralysis of the arm is very large. If we consider that no one supposes that that cerebral ganglion is a motor centre, the production of any kind of paralysis when there is a lesion entirely limited to a part or to the whole of that ganglion is of great value in showing, what I try to prove, that we ought not to admit that paralysis, allied with a brain lesion, is necessarily the result of the loss of function of the diseased part of the brain. I will only give the essential features of some cases of disease of the optic thalamus having caused a paralysis either of the arm or of the leg alone. As regards cases of hæmorrhage in the optic thalamus, I will mention the following as having produced a paralysis of the arm alone: One recorded by R. Bright,[27] one by Dr. Bouchard,[28] one by Tacheron,[29] one by Gendrin,[30] one by Rilliet and Barthez,[31] one by Védie,[32] and three others mentioned by Gintrac.[33] Of cases of softening or inflammation I will only mention the following: One by R. Bright,[34] one by Lallemand,[35] one by Andral.[36] Of cases of tumour I will only mention one, recorded by the observer I have just named (Andral).[37]

I pass now to cases of lesion of the optic thalamus having caused paralysis of the lower limb, either alone or chiefly. There are not by far so many cases of paralysis of that extremity as there are of the upper one; and generally, besides the lesion of the optic thalamus, there was one also of other parts of the brain, so that the value of the case is much diminished. So it was in a case of Dr. R. B. Todd,[38] in which, besides a clot found in the left optic thalamus, there was softening of the white substance of that hemisphere. The right leg was incompletely paralysed. I mention this case, however, because, whether we look upon the softening of the white substance or upon the lesion of the optic thalamus as having caused the right hemiparaplegia, the case anyhow is in opposition to the admitted views as regards the mode of origin of paralysis. The same thing can be said of a case of Cazauvielh's,[39] in which the left leg was atrophied and paralysed more than the arm, and in which the right optic thalamus was atrophied. There was, besides, a cyst in the middle of the left posterior lobe. In a case in which the left leg was paralysed, Bouvier[40] found several cysts in the right optic thalamus, and one between the pia mater and the convolutions. The left leg was more paralysed than the left arm in a case in which Lacrampe-Loustan[41] found two apoplectic cysts, one in the right optic thalamus, the other in the right corpus striatum.

The conclusion flowing out naturally from these facts is that paralysis may appear either in the upper limb or in the lower one through an agency which is not that which is universally admitted for cases of brain disease—i. e., the loss of the function of the part diseased.

14 Traité du Ramollissement du Cerveau, 2nde édit., p. 256.
15 On this point, as on most others, I hardly mention cases recorded by British medical observers, because I suppose them to be more familiar already to my hearers or readers.
16 Traité de l'Encéphalite (1825), p. 133 (a case of Bouillaud's), p. 151 (a case of Andral's), and p. 155 (a case of Lacrampe-Loustau's).
17 Loc. cit., p. 107.
18 Quoted by Lallemand, loc. cit., vol. i., p. 9.
19 Clinique Médicale, 4ème édit., vol. v., p. 306.
20 Revue Médicale (1824), vol. i., p. 419.
21 Gazette Médicale de Paris (1838), p. 279.
22 Loc. cit., p. 216.
23 Traité des Plaies de Tête par Contre-coup, p. 140.
24 Quoted by Gintrac, loc. cit., vol. viii., p. 217.
25 Bibliothèque du Médecin Praticien (Paris, 1849), vol. ix., p. 134.
26 Quoted by Gintrac, loc. cit., vol. vii., p. 266.
27 Reports of Medical Cases, vol. ii., p. 615.
28 Etude sur quelques points de la Pathogénie des Hémorrhagies Cérébrales (Paris, 1867), p. 87.
29 Recherches Anatomico-pathol. sur la Médecine Pratique (Paris, 1823), vol. iii., p. 411.
30 Bibliothèque du Médecin Praticien, vol. ix., p. 61.
31 Traité des Maladies des Enfants, vol. ii., p. 269.
32 Annales Médico Psychologiques (Mars, 1874), p. 345.
33 Loc. cit., vol. vii. One due to Serres, p. 194; another to Chomel, p. 199; and the third to Piorry, p. 201.
34 Loc. cit., vol, ii., p. 620.
35 Loc. cit., vol. i., p. 47.
36 Loc. cit., vol. v., p. 419.
37 Loc. cit., vol. v., p. 652.
38 Clinical Lectures (1861), p. 744.
39 Quoted by Lallemand, loc. cit., vol. iii., p. 238.
40 Mémoires de la Société de Biologie (1864), p. 109.
41 Revue Médicale, (1824), vol. i., p. 427.

BEQUESTS &C. TO MEDICAL CHARITIES.—Lady Louisa Percy has given £400 to the Middlesex Hospital for an hydraulic lift. Mr. John Broughton of Peterborough bequeathed £200 to the Peterborough Infirmary.

Clinical Lecture
ON
STRANGULATED HERNIA.

Delivered at the London Hospital, Oct. 3rd, 1876,

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GENTLEMEN,—By a curious coincidence a case of strangulated hernia has come under my care on the last day of each of my last three in-taking weeks. Each case has some special points of interest.

CASE 1.—This was an instance of strangulated inguinal hernia of the left side, reduced *en masse* by the patient himself. I operated upon him successfully; and for the second time, with an interval of ten years.

CASE 2. *Femoral hernia; operation; recovery.* (Reported by Mr. Herman Tribe.)—H. MacC——, aged fifty-eight, a blacksmith, was admitted on June 20th, 1876. Ten months ago he observed a swelling in his left groin, which sometimes disappeared. On June 17th the swelling became very hard and painful, and vomiting, which has persisted, set in. On examination to-day (June 20th) a hard, globular tumour was found at the seat of femoral hernia. There was slight impulse on coughing(?). The finger could easily be passed into the inguinal canal. The patient still vomited, appeared to be very weak, and his countenance looked haggard. An operation was considered advisable, and the man at once consented. The taxis was not employed by Mr. Maunder, but he opened the sac, which proved to be very thin, at once. A small quantity of turbid fluid escaped. The knuckle of intestine was portwine-coloured, slightly roughened with lymph. A very tight stricture was nicked, and the bowel reduced. The wound having been closed with suture and a compress, and bandage applied, the patient was returned to bed, and a grain of opium administered. Milk diet.

June 21st: He complains of slight pain in the abdomen, but of no tenderness. Temperature 101·5°; pulse 102. To take a grain of opium every six hours.—22nd: Has slept well. There is a little redness and swelling about the wound. Lest decomposing fluids should be pent up, the sutures were removed, and the margins of the incision forcibly separated. A poultice to be applied.—23rd: The redness about the wound has disappeared. The bowels are somewhat relaxed. The appetite is returning. Temperature 99·6°; pulse 96.—25th: The patient has suffered from diarrhœa since yesterday. To take chalk mixture.—26th: Diarrhœa has ceased. Wound suppurating freely. Replace the poultice by water-dressing.—27th: Diarrhœa came on again.—July 6th: The patient is convalescent; the wound nearly healed. Zinc dressing.—14th: The patient is quite well, and awaits his truss.

CASE 3. *Strangulated inguinal hernia; operation; recovery.* (Reported by Mr. Herman Tribe.)—Samuel S——, aged thirty-three, a builder, was admitted July 18th, 1876. Ten years ago, whilst at work, the patient ruptured himself. He had the rupture at once reduced by a surgeon. Since that time he has always been obliged to wear a truss; the hernia has never given him any trouble. On July 17th he neglected to wear his truss, and after he had been at work a little while the hernia came down. The patient attempted to reduce it, but could not do so. In about an hour's time he was compelled to leave work on account of vomiting. He went home to bed, was in great pain all night, and the vomiting persisted.

On examination a left inguino-scrotal tumour is found, pyriform in shape, tense, and painful. There is marked impulse on coughing (?). The tumour is not compressible. The patient vomits constantly.

Operation, eighteen hours after descent of hernia.—The patient having been placed under the influence of an anæsthetic, the taxis was applied for fifteen minutes, but failed to reduce the swelling. Herniotomy was then done. The structures were successively divided by a longitudinal incision over the neck of the swelling until the sac was reached. In this structure a most marked annular depression was both seen and felt, and proved to be the seat of stricture. This grooved portion of the sac was carefully divided by repeated scratches of the knife. Through the small button-hole thus formed omentum showed; and now, when the taxis was again applied, reduction was effected. The wound was closed in the usual way, and a dose of opium administered.

July 19th: The patient is very comfortable.—20th: Sutures removed.—21st: Bowels spontaneously moved. Slight suppuration with some redness and swelling about the wound, the edges of which Mr. Maunder now forcibly separated. Poultice to be applied.—24th: Redness and swelling have disappeared from the wound. Zinc ointment to be used.—Aug. 1st: The patient is quite well, and is only waiting to have a truss.

With regard to Case 1—reduction *en masse*—I shall say nothing to-day, having taken every opportunity of drawing your attention to its importance when the man was in the hospital. It is published in THE LANCET (July 29th, 1876), and can be referred to by those interested in the subject.

Case 2 is an example of femoral hernia in the male—a lesion of comparatively rare occurrence, though probably less rare than inguinal hernia in the female. Possibly, out of at least 120 herniotomies, some half-dozen of femoral in the male have fallen to my lot. In the present instance the tumour was typical, being globular in shape, seated at the upper and inner side of the base of Scarpa's triangle, whence it could not be displaced to the inner side of the spine of the pubis.

In both Cases 2 and 3 the notes say "there was impulse on coughing." To this I have added a query, as there really was none. It is desirable you should understand, in connexion with hernia, the value, as a symptom, of the presence or absence of "impulse on coughing." Supposing the sac to contain bowel, with impulse on coughing, that would be proof that the contents of the intestine, both above and below the point of protrusion, directly communicated, and strangulation would not exist. The absence of impulse would show an absence of intercommunication, and that stricture existed. To avoid error, then, with regard to the presence or absence of impulse, the hernial tumour must be lifted away from the abdominal wall, when the *propulsion*—sometimes mistaken for impulse—communicated on coughing will be no longer felt, and the question of impulse settled. Imagine a patient with a hernia on either side and symptoms of strangulation. The absence of impulse on the one side and its existence on the other would materially help you to decide which to select for exploration. This method of examining a hernial tumour will prevent a very usual mistake. The local tumour and persistent vomiting in both instances led to the conclusion that we had a case of strangulated hernia to deal with, and reduction became the first consideration. This may be effected by the taxis, with or without the aid of the knife.

Question of taxis.—The taxis, a most valuable agent when judiciously applied, may, under some circumstances, be most injurious. You will have observed that I did not employ it in Case 2, but resorted to it for a quarter of an hour in Case 3. Observe the history of the two patients before they came under care. Case 2 had a history of strangulation extending over three days and three nights, and had only been ruptured ten months. Case 3, on the contrary, had been ruptured ten years, and his present symptoms extended over eighteen hours only. As a rule, the longer a person has been ruptured the larger becomes the ring, and the less quickly injurious will be its effect upon the structures which it constricts; and therefore, for the above reasons, I proceeded at once with herniotomy in Case 2, feeling pretty confident that I should not effect reduction and that I ought to see the condition of the intestine before reducing it. With Case 3, whose hernial history was quite the reverse of Case 2, I fully expected to effect reduction by the taxis, but failed. The unyielding neck of the sac, exposed by the operation, explained the reason. Speaking generally of the taxis, I say: Use it thoroughly once only, aided by an anæsthetic if admissible, or other adjuvant; should it fail, resort to herniotomy. Even a successful taxis cannot but bruise, and that to a dangerous degree, an already much inflamed portion of bowel. This often efficient

remedy can be aided by position, the trunk and limb of the patient being so placed as to favour relaxation of all the structures interested at the hernial aperture. As an illustration, I may mention that many years ago a male, the subject of femoral hernia, was under my care among the out-patients. When the patient was recumbent, and his lower extremity, of the side on which the hernia was, extended, moderate taxis failed to effect reduction; but with the thigh flexed, adducted, and rotated inwards, reduction was easy. Doubtless this facility was due to a relaxation of the upper cornu of the saphenous opening of the fascia lata.

Question of opening the sac.—This used to be a much-vexed question, but I fancy surgeons are pretty well agreed that in femoral hernia it is almost immaterial whether the sac be opened or not. Personally I avoid doing so, except under special circumstances, on the good general principle of non-interference. But in the case of an inguino-scrotal hernia I am most reluctant to open it. You will recollect how I pointed out to you the probable position of the stricture in the case of No. 3, and which coincided with the external ring. This I nicked and enlarged, but even then could not effect reduction, and it was only when I reached the sac and showed to you a deep sulcus in this that the immediate obstacle was evident. Mr. Tribe has described the care and caution which I used, and the very small wound which I made in the serous membrane, with a view to enlarge the constricting neck just enough to admit of reduction. I allowed nothing—not even the point of a director, much less my finger—to enter the sac, so as to avoid every risk of peritonitis.

The after-treatment of the wound requires some consideration. I generally close it with the hope of getting primary union, and now and then this has resulted both in hospital and in private practice. But the surgeon must be on his guard, the parts being concealed by compress and bandage, lest decomposing fluids become pent up and give rise to both local and constitutional disturbance. Should one or both arise, as occurred in these cases, the treatment is evident. Some years ago a man of seventy, from Chigwell, had been submitted to herniotomy. He progressed very favourably for several days, when, finding him drowsy and somewhat light-headed, with loss of appetite, I examined the seat of the wound, which, though healed, fluctuated. I opened it up, and gave exit to some stinking pus. A charcoal poultice was applied. On the next day all unfavourable symptoms had vanished, and the patient recovered.

Of these three patients two suffered a good deal from diarrhœa. It is reasonable to suppose that a portion of intestine injured by compression and inflammatory action would take time to recover its health. To give it rest that it may do so, we generally administer one or more doses of opium to arrest peristalsis, and administer liquid nourishment for a few days. Possibly a subacute enteritis, spreading from the damaged portion of bowel, may account for this relaxed condition. This might be prevented by a method of treatment which commends itself to my judgment, recently suggested by Mr. De Berdt Hovell. It consists in supporting the patient by nutrient enemata for a few days subsequent to operation. Certainly, by this method the small intestines would be left quiescent, and possible perforation be averted.

Your patient must not get up until provided with a suitable truss. No patient who is ruptured should be without his truss, except when he is recumbent. The danger of going without it is illustrated by Case 3. For ten years the man had not been without it, and the hernia had never given him any trouble. He omits to wear it, and becomes the subject of strangulation and herniotomy.

POOR-LAW RELIEF IN IRELAND.—A preliminary statement respecting the relief of the poor in Ireland during the year ending 29th September has lately been issued by the Local Government Board, and from this document we learn that the total number of poor relieved was 257,645, a decrease of 23,711 as compared with 1875. The inmates maintained in workhouses numbered 188,000, against 214,029 in the preceding year. There was £97,398 expended in out-door relief, while the expenses under the Medical Charities and Vaccination Acts came to £141,368, the Sanitary Acts costing £39,544, being an increase of £6610 over 1875.

THE

EFFECT OF PROLONGED MUSCULAR EXERCISE UPON THE URINE IN RELATION TO THE SOURCE OF MUSCULAR POWER.

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(*Concluded from vol. ii., 1876, p. 889.*)

DESCRIPTION OF THE PROCESSES OF ANALYSIS APPLIED TO THE URINE.

Free acidity.—For the determination of the free acidity, 10 c.c. of the urine were placed in a flask, diluted with about 100 c.c. of distilled water, and a few drops of a neutral solution of litmus added. The contents of the flask were then titrated with a standard soda solution of deci-normal strength until the neutralising point was attained. Every cubic centimeter of the soda solution employed represented acidity equivalent to ·0063 gramme of crystallised oxalic acid.

Solid residue.—50 c.c. of the urine were evaporated over a water-bath in a previously weighed platinum capsule. The capsule and its contents were then subjected during between three and four hours to a temperature of 240° F. in a hot-air oven, placed in a desiccator to cool, and afterwards weighed as quickly as possible.

It fortunately happens that the amount of solid residue did not form an item which required to be taken into account in framing the conclusions arrived at, for, although the determination would seem theoretically to be a matter susceptible of being easily effected with precision, yet practically difficulties are encountered which it must be said give a want of certainty to the result. The great affinity of the organic constituents of urine for water renders the employment of a temperature higher than 212° F. indispensable, and even at a temperature of 240°—that ordinarily employed—the water is still retained with a considerable degree of tenacity. If this, however, were the only difficulty existing, prolonged exposure in the hot-air oven would suffice to overcome it; but with the difficulty in removing the water there exists a source of error due to the escape of ammonia arising from the decomposition of urea. Thus the heat which is required to drive off the water leads to a dissipation of a portion of the solid matter by its conversion into a volatile product—viz., carbonate of ammonia,—and the higher the temperature employed the more readily does this dissipation occur.

From these two circumstances it is found to be impossible to attain a period in the process of drying when the weight remains constant.

The following example, which forms a record of an actual observation, affords an illustration of what has been stated.

Twenty c.c. of urine were placed in a capsule and reduced by evaporation over a water-bath to a semi-solid condition. The capsule and its contents were then exposed in the hot-air oven to a temperature of 240° F. for three hours and a half, this being the time allowed in the analyses. The weight was now taken, and the capsule replaced in the oven for another three hours. Re-weighing showed a loss during this period of 0·114 gramme. During another three hours there was a loss of 0·079 gramme; during the subsequent four hours 0·107 gramme; and, lastly, during the succeeding period of five hours, 0·154 gramme.

Even evaporation at 212° F. is attended with a significant loss of ammonia. This is shown by the following experiment, in which an apparatus was used that had been especially devised to collect and estimate the ammonia. Two c.c. of perfectly fresh urine were placed in a small porcelain boat-shaped receptacle, and introduced into a glass tube, which was afterwards fitted with corks at either end, provided with tubing adjusted for the passage of a current of air through the interior. The tube and its contents were exposed in a hot-air oven to a regulated temperature of 212° F. A current of air, which had been freed from ammonia and dried by passing over argentic chloride and through strong sulphuric acid, was then made to traverse the interior, and in escaping was conducted through bulbs containing a solution of oxalic acid of known strength. The

amount of oxalic acid which had been neutralised by the evolved ammonia was determined by titration with soda solution at the end of the first hour, at the end of the second hour, and at the end of the fifth hour and a half. The results showed that during the first hour 0·001615 gramme of ammonia escaped; during the second hour, 0·002465 gramme; and during the remaining three and a half hours, 0·005270 gramme. Thus, from 2 c.c. of urine 0·009350 gramme of ammonia was given off during evaporation at 212° F. in five hours and a half—a quantity which, though it seems minute, is not in reality so considered in relation to the small amount of urea dealt with—viz., that contained in the 2 c.c. of urine taken.

The difficulties which beset the determination of the total solid residue not only tell upon this, but also upon the "other organic matters" forming another item of the analyses. The figures under this head represent the undetermined surplus resulting from the deduction of the urea, uric acid, and ash, from the total solid residue. The extractives of the urine will be here comprised, but from what has been said regarding the retentive capacity of the solid matter of the urine for moisture on the one hand, and the escape of ammonia on the other, it is evident that the amounts given must not be read as furnishing a strictly accurate representation. No use, however, was made of these figures, and it was therefore not a matter of any concern. The only point which required attention was as to whether the "other organic matters" included nitrogenous products to any significant extent. This point was decided in the negative by comparing, in several instances, the nitrogen determinations of the urine by combustion analysis with the nitrogen given as the result of calculation from the urea and uric acid. The results thus obtained will be supplied further on, when reference will be again made to the subject.

Incinerated residue.—The solid residue contained in the platinum capsule after being weighed was ignited over the flame of a large Bunsen burner until a white ash was obtained. To secure complete ignition of the ash without using a temperature sufficient to volatilise the alkaline chlorides, a little ammonic nitrate was added to the charred residue.

Urea.—This was determined by Liebig's mercuric nitrate process, and checked by Russell and West's modification of the method of Davy.

Uric acid.—100 c.c. of the urine were taken, and 5 c.c. of strong hydrochloric acid added. After being allowed to stand forty-eight hours, in a cool place, the crystalline deposit was collected on a weighed filter, washed with cold water, dried, and weighed.

The disparity between Dr. Flint's results and my own, as regards uric acid, was on a former occasion referred to. The amount of uric acid appearing in Flint's analyses is extremely small, and, according to his statement, nitric acid was employed to throw it down instead of the hydrochloric, which is the acid ordinarily employed. In addition, also, twelve hours only were allowed for its deposition previous to collection, drying, and weighing.

With a view of reconciling the difference in the results obtained by Dr. Flint and myself, some comparative observations were made with the two processes, and the effect noted of allowing different periods of time for the deposition of the uric acid after treatment with nitric acid. The results obtained fully suffice to account for the discordance existing between us.

The one set of observations was conducted upon three separate specimens of urine. In each of the three cases, four portions of 100 c.c. of the urine were taken. Two of the portions were evaporated and treated with nitric acid, as directed by Dr. Flint, but were subsequently allowed to stand twenty-four hours instead of only twelve hours, the time stated to have been given by Dr. Flint. The other two portions were treated with hydrochloric acid, and permitted to stand forty-eight hours, as in the method of analysis described. Subjoined are the results presented in a tabular form:—

Uric Acid in grammes per 1000 *c.c. of Urine.*

	With hydrochloric acid.		With nitric acid.	
1st observation	·475	·460	·360	·230
2nd "	·210	·210	·185	·300
3rd "	·785	—	·660	·655

The above figures, it will be noticed, show, in the first place, a close agreement in the results from the hydrochloric acid process, and want of agreement in those from the other; and, in the next place, with one exception, which could not be satisfactorily accounted for, the amounts obtained by the nitric acid method fall considerably short of those given by the hydrochloric acid.

For the other line of observation three portions of 100 c.c. each were taken from a sample of urine and treated after the manner of Flint with nitric acid, but respectively allowed to stand fifteen, twenty-four, and forty-eight hours. The uric acid obtained from the portion allowed to stand fifteen hours was in the proportion of ·605 gramme in 1000 c.c. of urine; that for the portion allowed to stand twenty-four hours, ·670 gramme; and that for the remaining portion, ·740 gramme. It thus becomes evident that, with only an allowance of twelve hours for precipitation, a considerable quantity of uric acid would escape recognition.

Nitrogen.—The urea and uric acid yielded the factors for estimating the amount of out-going nitrogen by the urine. On account of the importance, however, of being satisfied that a reliable representation of the eliminated nitrogen was thus supplied, I deemed it advisable to check the result given by some direct determinations by combustion analysis.

Those who have put in practice this method of analysis upon the urine know that difficulties are encountered which call for a modification of the ordinary process. It is fruitless to attempt to obtain a suitable dried residue to operate upon on account of the tenacity with which water is held by the solids of the urine; and, moreover, even evaporation at a moderate temperature leads, as has been already shown, to a loss of nitrogen under the form of ammonia. To overcome the obstacles encountered the urine was dealt with in a direct way, but to accomplish the undertaking in such a manner, it was necessary that means should be devised to prevent the moisture condensing and settling within the combustion tube, and thereby leading to its almost inevitable fracture.

The plan adopted was as follows:—A piece of combustion tubing, open at both ends, and about twenty inches in length, was provided. To one end was connected, through the medium of an accurately fitting cork, the nitrogen bulbs containing the acid solution; and to the other a cork traversed by a piece of small glass tubing, which was made continuous with vulcanised tubing leading to a gas-bag filled with air, and placed between a couple of hinged wooden flaps. By pressure upon the bag, exerted by a weight upon the upper flap, a stream of air, regulated by a screw clip applied to the vulcanised tubing, was forced through the combustion-tube, and thence through the bulbs containing the standard acid solution.

In performing the analysis, a plug of asbestos was introduced into one end of the combustion-tube. The tube was then filled on the top of this to about half its length with soda-lime. Five c.c. of the urine were next carefully allowed to run down into the soda-lime, which, of course, instantly absorbed it. More soda-lime was then quickly introduced, and the tube filled up with it to within about two inches of the end. A plug of asbestos was now inserted, and the corks adapted to complete the arrangement for the commencement of the next step of the operation. After the tube had been put into proper position on the gas-furnace, a stream of air was allowed to traverse it and escape through the acid solution in the bulbs at the rate of about one bubble a second. The burners of the gas-furnace were then gradually lighted one after another from the front backwards, and heat applied, at first moderately, and afterwards to the full extent, to complete the combustion. Finally, the contents of the bulbs were transferred to a flask, treated with a few drops of a solution of litmus, and titrated with a standard soda solution in the ordinary way.

Subjoined are results obtained by this process, compared with the estimation of nitrogen by calculation from the urea and uric acid. The close accordance noticeable shows that the determination of urea and uric acid suffices for the estimation, certainly for a general purpose, of the outgoing nitrogen, and that none of any moment can be contained in the "other organic matters" specified in the analyses, a point which I felt required to be settled.

Nitrogen in twenty-four hours.

Calculated from the urea and uric acid.	Found by combustion analysis.
18·96 grammes.	19·05 grammes.
19·05 ,,	19·03 ,,
15·00 ,,	15·98 ,,
23·56 ,,	24·75 ,,
37·74 ,,	38·92 ,,
38·89 ,,	38·79 ,,
32·60 ,,	32·73 ,,
29·16 ,,	29·31 ,,

Chlorine was estimated from the incinerated residue by dissolving with hot water acidulated with nitric acid, precipitating with argentic nitrate, washing the precipitate of argentic chloride, and drying at 212° F. As much of the precipitate as could be separated from the filter-paper was then transferred to a weighed porcelain capsule, the filter ignited on a platinum wire, and the ash added to the contents of the capsule. After the addition of a few drops of hydrochloric acid, to convert any reduced silver to chloride, the whole was warmed to expel the excess of hydrochloric acid, and weighed.

Sulphuric acid.—50 c.c. of the urine were taken, and a little hydrochloric acid added. The sulphuric acid was then precipitated as baric sulphate by means of baric nitrate. The precipitate was collected on a filter-paper, washed, dried at 212° F., transferred to a weighed platinum capsule, the filter-paper ignited as in the estimation of chlorine, the ash added to the contents of the capsule, and the whole weighed.

Phosphoric acid was estimated volumetrically by means of uranic nitrate. The reagents employed were the *uranic nitrate solution* of such a strength that 1 c.c. was equivalent to ·005 gramme of anhydrous phosphoric acid; and the *sodic acetate solution*, which was prepared by dissolving 100 grammes of sodic acetate in 900 c.c. of distilled water, and adding 100 c.c. of ordinary acetic acid. In carrying out the process of analysis, 50 c.c. of the urine were taken, and 5 c.c. of the sodic acetate solution added. After the mixture had been well warmed, the uranic nitrate solution was added until all the phosphoric acid was precipitated as uranic phosphate. The point of complete precipitation was found by means of potassic ferrocyanide, which gave an immediate indication when the uranic nitrate was no longer appropriated in producing a precipitate. A drop of the liquid, after each addition of uranic nitrate, being brought into contact with a drop of a solution of potassic ferrocyanide on a white slab, the slightest presence of uranic nitrate in excess was revealed by the reddish-brown colouration produced.

Soda and potash.—15 c.c. of the urine were mixed with 15 c.c. of the baryta solution used in Liebig's process for the estimation of urea. The mixture was filtered, and 20 c.c. of the filtrate, representing 10 c.c. of the urine, were evaporated to dryness over the water-bath in a platinum capsule. The residue was ignited in the capsule, and the contents washed out into a beaker with warm water. Ammonic carbonate was then added to precipitate the excess of barium present, and after filtration, the filtrate and washings, acidulated with hydrochloric acid, were evaporated to dryness over the water-bath, and gently ignited to drive off the excess of ammonic salts, care being taken to prevent loss by decrepitation. The residue was again taken up with water, and a little ammonic carbonate and ammonia added, filtration being subsequently performed if, as sometimes happened, a precipitate occurred. The liquid, which now only contained the soda and potash of the urine in the form of chlorides, together with some ammonic salts, was evaporated to dryness in a weighed platinum capsule, and gently ignited to expel the ammonic salts, the same precautions being taken to prevent loss by decrepitation as before. The capsule and its contents, being weighed, gave the amount of soda and potash expressed as chlorides. The contents of the capsule were next dissolved in water, platinic chloride added, and the whole evaporated to dryness over a water-bath in a porcelain capsule. The residue, which consisted of the double chlorides of platinum and potassium, and of platinum and sodium, together with the excess of the platinic chloride employed, was treated with alcohol, which dissolved the sodio-platinic chloride, and the excess of platinic chloride, leaving the yellow crystals of the potassio-platinic chloride. These crystals were thrown on a weighed filter paper, washed with alcohol, dried at 212° Fahr., and then weighed. Thus was furnished the amount of potash in the form of chloride. Deducting this from the amount of sodic and potassic chlorides previously ascertained, gave the amount of sodic chloride in the mixture. With these data, calculation now sufficed to furnish the amounts of potash and soda respectively present.

Lime and magnesia.—100 c.c. of the urine were taken, made alkaline with ammonia, and then slightly acidulated with acetic acid. A slight excess of ammonic oxalate was then added to precipitate the lime as oxalate. After being allowed to stand for two or three hours in a warm place, the precipitate was thrown on a filter, washed, dried, and ignited with the filter paper in a platinum capsule. A little ammonic carbonate was now added to convert any lime into carbonate, and a gentle heat applied to drive off the excess of ammonic salt. The crucible and its contents being weighed, and the weight of the ash of the filter paper deducted, yielded the amount of lime expressed as carbonate.

To the filtrate from the calcic oxalate a slight excess of ammonia was added. In this way the magnesia was precipitated as ammonio-magnesic phosphate. After being allowed to stand for twelve hours, the crystalline precipitate was thrown on a filter, washed with cold water containing a little ammonia, dried, ignited strongly in a weighed platinum crucible, and weighed as magnesic pyrophosphate, allowance being made for the weight of the filter-ash.

A WEEK'S SURGERY IN THE NEWCASTLE-ON-TYNE INFIRMARY.

BY W. C. ARNISON, M.D.,
SURGEON TO THE INFIRMARY.

THE following cases were admitted under my care during the week Nov. 2nd—8th, 1876.

CASE 1.—J. F——, aged thirty-one, admitted Nov. 3rd. On October 22nd a boy threw a stone at him, which struck him on the right frontal eminence, producing a small wound, which was dressed, and soon healed, and the patient felt no ill-effects until a week afterwards, when he was seized with epileptic convulsions, during which he was unconscious. The fits recurred about every half hour, both sides of the body being affected.

On his admission the epileptic fits were very frequent, of prolonged duration, and most violent character. The aspect was dull, intellect much clouded, but he replied sensibly to questions; the pupils slightly and equally dilated and sluggish; a small starred cicatrix at the site of the wound. Taking all the circumstances of the case into consideration, the indications for trephining seemed clear, although fracture or depression of bone were both improbable. At 6.30 P.M. chloroform was administered, a crucial incision made through the scar, and a large trephine applied. When the disc of bone was removed, the dura mater appeared healthy, but, on touching it, it was found to fluctuate; an incision was made into it, and about a teaspoonful of pus discharged. The piece of bone appeared healthy, but, after washing it, a very fine crack, about half an inch long, was seen in the inner table. The wound was lightly closed and bandaged, a purge of calomel and croton oil administered, and an ice-bag applied to the head. The pulse and temperature rose soon after the operation to 112 and 102·4°. Tincture of aconite was then given, a minim and a half every ten minutes for two hours, and afterwards every half hour. Under its use the pulse and temperature fell to 80 and 100°. During the night there were eight violent epileptic fits, which continued with great frequency and violence through the day. But the fits gradually abated, both in frequency and violence, and by Nov. 5th they were reduced to seven in twenty-four hours, the left side only being affected. His condition in other respects, however, was not good; there was cerebral hernia, which slowly enlarged, and increasing mental torpor. Bleeding also took place from the surface

of the protruding mass, and a compress, soaked in solution of perchloride of iron, was applied. On Nov. 6th a portion of the hernia was cut away, being nearly detached. The ice was discontinued, and warm fomentations applied. There were only three fits in twenty-four hours, but the patient was becoming more and more torpid. Coma gradually came on, and he died on Nov. 9th.

Autopsy, twenty-eight hours after death. — The internal surface of the dura mater, corresponding to the upper half of the right hemisphere, was covered with pus. The tip of the right frontal lobe was hollowed out into a fungating cavity, and there were patches of pus and lymph here and there over both hemispheres. There was marked purulent deposit all over base of brain. The brain-substance was tough, and the left lateral ventricle contained a small quantity of purulent fluid.

CASE 2.—J. C——, aged sixteen, admitted Nov. 3rd, with railway smash of lower end of right femur, done at noon, but not admitted till 5.30 P.M. He was in such a state of depression from cold, shock, and loss of blood, that amputation was out of the question, but by stimulants, beef-tea, &c., administered by mouth and rectum, he had so far rallied on the following morning that at 10 A.M. amputation by antero posterior skin-flaps was performed at mid-thigh. Careful stimulation by champagne, &c., was required for some time. There was great depression, and repair was slow. The end of the bone became uncovered, and on Dec. 10th about an inch was sawn off it. From that time improvement was rapid, and on Jan. 4th the patient was discharged well. The case was treated antiseptically, and though primary union failed from the low state of the patient, the discharge was not great, and never in the least offensive.

CASE 3.—T. J——, aged twenty-four, admitted Nov. 4th, at 10 P.M., with strangulated left inguinal hernia. On visiting him the same night, I found that the house-surgeons, Messrs. Williamson and Dixon, had partially reduced it, with some relief to the symptoms, which were not then urgent. An ice-bag was applied, and he was ordered simple enemata, which were repeated four times in the night with still further relief; but at noon on Nov. 5th, as vomiting was present, and was becoming stercoraceous, an immediate operation was recommended, but only after considerable persuasion submitted to. From the fact that the patient said he had had the hernia all his life, and that the right testis was not fairly out of the canal, congenital hernia was diagnosed, and the operation proved the diagnosis to be correct.

Chloroform having been administered, an attempt to reduce the hernia was made, but failed, and the operation was then performed in the ordinary manner. It was necessary to open the sac, an attempt to return the contents without doing so having failed. A knuckle of congested gut, and a portion of omentum which occupied the scrotum, were then readily returned, the testis being exposed. The wound was closed by sutures. On Nov. 8th the pulse and temperature were normal, on the 9th the last sutures were removed, the wound having healed, and on the 11th he was discharged with a truss.

CASE 4.—On Nov. 6th, J. B——, aged twenty-nine, was admitted with a large venous nævus, occupying the left side of the forehead and the left cheek and eyelids, closing the eye, and giving the patient rather a frightful aspect. In 1863 the nævus, then just beginning, was removed by Professor Pirrie, of Aberdeen, with the écraseur. In 1870 he was under the care of Professor Spence in Edinburgh, and by the application of galvanism its growth was arrested. For nearly five years it remained stationary, causing little inconvenience; and then again began to enlarge, in consequence, he believes, of a blow. By firm pressure the nævus could be nearly emptied, and when the pressure was removed it slowly rose like a sponge.

On Nov. 15th the current of a twenty-cell battery was passed through the part on the forehead, by needles introduced at different points, and the following day that part was found firmly coagulated. The needles were applied three times afterwards, at intervals of about a week, to the cheek and eyelids, and considerable coagula formed. On Dec. 16th the forehead part of the nævus was much reduced in size; but as some of the punctures in the cheek were suppurating, he wished to go home for a time until they healed.

On Nov. 7th I had the following operations:—

Lithotomy in a boy of three years, who had had symptoms of stone for eighteen months. His growth seemed to have been arrested, his appearance being that of a child of eighteen months. A uric-acid stone, the size of a large filbert, was extracted. The boy went home on Dec. 2nd.

Necrosis of tibia in a girl of thirteen. A large superficial sequestrum, consisting of fully half of the subcutaneous surface, was removed. The patient rapidly recovered, and was discharged with the wound nearly healed on Dec. 2nd.

Sinuses round shoulder-joint in a man of thirty. About a year ago the left humerus was fractured at the surgical neck by a large piece of iron falling upon it, and he was an inmate of the Ingham Infirmary, South Shields, for about three months. The sinuses had openings behind and in front of the deltoid insertion. The openings were enlarged sufficiently to admit the finger, and the sinuses were found to pass quite round under the origin of the deltoid. No exposed bone was detected there, but the sinus in front was found to diverge, and under the pectoral muscles a fragment of bone, smaller than a pea, was found and extracted. Under treatment by rest, the arm being bandaged to the side and motion of the joint prevented, the progress to recovery was almost uninterrupted, and on Nov. 30th the patient left the hospital with the sinuses healed and free movements of the joint.

In conclusion, I wish to express my great obligations to my house-surgeon and dresser, Messrs. J. D. Dixon and R. Knox Tait, for their unremitting attention to the cases, and the careful and complete notes from which I have drawn up the report.

A SKETCH OF THE RECENT EPIDEMIC OF TYPHOID FEVER IN PARIS.

BY DR. BOURDON,

MÉDECIN DE L'HÔPITAL DE LA CHARITÉ, MEMBRE DE L'ACADÉMIE DE MÉDECINE.

I DESIRE to place before the readers of THE LANCET a brief account of the epidemic of typhoid fever with which Paris is at the present time affected. This disease, as is well known, is endemic in our capital, and an exacerbation takes place every year during the summer and autumn. This year, however, the disease has spread considerably, and has attained the dimensions of an epidemic; for, in the second quarter of the year, the total number of typhoid patients in the hospitals of Paris amounted only to 169, with a mortality of 20 per cent., whilst in the third quarter the number of those affected rose to 714—that is to say, was more than quadrupled, and the mortality reached the enormous proportion of 39 per cent.

If we investigate the atmospheric conditions, which might be regarded as constituting the causes of this epidemic, it will be found that in the months antecedent to the outbreak the rainfall was below the average proper to this period of the year—that there had been, in fact, a great drought. The temperature rose as usual, and remained moderate for some time. On the 9th of June, however, it suddenly increased, and continued excessively high till the 17th August. On the 18th of August it fell considerably, and the rains began. In September the drought had passed away; 69 millimetres (2·76 inches) of rain fell.

The exacerbation of the disease distinctly coincided with the dryness and heat, and we may notice that the paroxysm is marked much more by the excess of the mortality than by the number of patients. It diminished with the cessation of the heat and dryness. The most severe cases occurred in August. The number of cases continued to augment subsequently to this period, but the relative mortality underwent a sudden reduction.

Etiology.—The first question, then, is—Are we to regard these exceptional atmospheric conditions as the cause of the epidemic. No doubt can be entertained that the lowering of the level of water in the subsoil exposed a whole series of putrid foci, and that the excessively high temperature was well adapted to induce fermentation, and at the same

time to favour the diffusion of the effluvia produced, by causing an unusual amount of evaporation. May we not then attribute to the miasmata, so developed, the leading part in the genesis of the typhoid fever?[1]

Whatsoever may have been the influence of this cause on the outbreak of the disease in August, the epidemic, which had diminished during September and the beginning of October, burst forth with renewed intensity towards the middle of this month, and continued to rage till November; so that the mortality, which had fallen to 163 in October, rose to 929 in November. It is satisfactory to add that during the last week [Dr. Bourdon's paper is dated the 8th December] the new cases, as well as their severity, have been steadily on the decline.

In regard to individual causes, we find the same predisposing causes as in other epidemics of typhoid fever: in the first instance, old age and youth; imperfect acclimatisation; then all debilitating causes, unfavourable hygienic conditions, grief, violent emotions, the exhaustion following delivery, and especially consequent on lactation; and lastly, contagion, of which several examples could be cited. It is remarkable that this epidemic, notwithstanding its gravity, was only very rarely observed in those who had been previously attacked. Relapses, on the contrary, were frequent.

Forms.—The forms observed have been very various, but those which were most prevalent were the ataxic, ataxo-adynamic, and mucous. The most common complications were those of the respiratory organs; many patients suffered from pulmonary congestion and from broncho-pneumonia, especially in the second outbreak of this disease. A certain number of intestinal hæmorrhages and perforations occurred, and in one instance suppurative peritonitis without perforation.

Prognosis.—The prognosis is, of course, associated with the mortality which has already been referred to. 30 per cent. is an enormous proportion, but this has fallen to 20 per cent., notwithstanding the larger number of patients attacked; and I doubt whether this mortality will be maintained during the second exacerbation of this disease, if I may judge from my service in l'Hôpital de la Charité, in which the proportion of deaths has been scarcely 13 per cent., and in l'Hôpital des Enfans only 11 per cent.

The employment of the thermometer has proved of extreme value in the prognosis of the disease. Thus, when the temperature taken in the axilla rose above 104° F. (40° C.), in the evening, and did not fall or fell but little in the morning, the state of the patient was very serious. Yet several cases of recovery occurred, under the use of cold sponging or baths, in cases where the temperature rose to 105·8°F. (41° C.) in the evening, and fell one or two degrees centigrade in the morning.

Treatment.—In simple cases and in those of moderate intensity the treatment has consisted in the administration of acidulated drinks, of saline purgatives repeated every other day, and demi-lavements of warm water on the alternate days; in the application of poultices to the belly, and in giving food consisting of beef-tea, milk, and claret (Bordeaux) diluted with water; when adynamic symptoms appeared thirty to forty-five grains of the liquid extract of chinchona were prescribed, with vin de Bagnols, and in many cases the drink recommended by Todd.

In the ataxic form, musk in doses of from 6 to 12 grains (40 to 90 centigrammes) sometimes proved effective. In severe cases recourse has been had to sponging with water three or four times a day, at a temperature of 68° to 70° F. (20° to 22° C.) In cases of hyperthermy this proceeding was of the greatest possible value. In some cases not only did the temperature fall, but satisfactory perspiration was established. I constantly employ this measure, even when there is congestion of the bronchi, or that general condition of bronchitis which usually accompanies typhoid fever, and I do not find that these pathological conditions are increased.

I have never ventured to administer repeated cold baths. Many of my colleagues at the hospital, however, state that they have proved serviceable in their hands in ataxia, and especially in hyperthermy. I must acknowledge, however, that I doubt the expediency of producing violent effects in a malady in which congestion of the viscera may so readily supervene. Some facts in regard to hæmoptysis and of pneumonia which have recently occurred after the employment of cold baths have, I believe, somewhat calmed down the enthusiasm that they originally inspired. In the thoracic form characterised by exaggerated bronchitis or intense pulmonary congestion, I have had occasion to be thoroughly satisfied with the application every night and morning of numerous dry cups (20 to 30) to the chest and thighs. When these morbid states are persistent, and, above all, when they are superimposed on pneumonia, I follow up the dry cupping with a series of flying blisters. It is remarkable that in a disease in which eschars form so easily on the skin, I have never, either in this or in preceding epidemics, observed gangrene affect the portion of the skin that had been vesicated. In the cases where relapses occurred, and which were in most instances due to solid food having been given at too early a period or in too large a quantity, a return to the former treatment was usually successful.

It only remains to mention an accident I have observed on several occasions, and which bears on the subject of alimentation. Towards the close of the disease, or during the period of convalescence, I have seen some subjects suffer from vomiting, and reject not only all solid food, but the lightest drinks and even beef-tea. In all these cases I have been enabled to re-establish the digestive functions by restricting the patient to an exclusively milk diet, with a fair proportion of lime-water for those that suffered from diarrhœa, and solution of bicarbonate of soda for those who were constipated.

Such is a *résumé* of the history of the typhoid fever that has now been prevalent in Paris for some months, but which is daily diminishing in severity and extent, and will, I hope, soon disappear.

Paris.

[1] These etiological details are borrowed from the remarkable memoir of Dr. Besnier, of the Société Médicale des Hôpitaux, Nov. 3, 1876.

ON THE PREVALENCE OF COLOUR-BLINDNESS.

By HERBERT W. PAGE, M.A., M.C. Cantab., &c.,
Assistant-Surgeon to St. Mary's Hospital.

In the discussion on colour-blindness to which the Arlesey railway accident has given rise, it has been abundantly evident that there is still a widespread impression that this peculiarity is not at all uncommon. A correspondent in *The Times* of December 28th calls attention to the fact that in a recent examination of engine-drivers in Sweden, "no less than 10 per cent. were proved to be unable to announce properly the colour of the lamps"; and a writer in the same paper of December 30th quotes from the late Professor G. Wilson's book, "Researches on Colour-blindness," to show how large a proportion of the persons submitted by him to examination was found to be colour-blind.

It is, I believe, on the statistics of colour-blindness given by Professor Wilson in his well-known work that the impression, among the laity at any rate, as to the prevalence of colour-blindness is based. At page 68 Dr. Wilson refers to the experience of Dalton, who was the first to make any attempt to ascertain the number of colour-blind in the population, and who found out of two classes of his students that the proportion of colour-blind was 12 per cent. and 8 per cent. respectively. Professor Pierre Prevost is named as having estimated the proportion of colour-blind at 5 per cent. Professor Seebeck "found 5 out of 40 youths in a gymnasium at Berlin the subjects of colour-blindness." Three "thorough Daltonians" were found in a class of 150 students by Professor Kelland. Five cases were found in 158 of the Edinburgh police, and 5 out of 42 male attendants at the Royal Asylum, Morningside. Professor Wilson himself examined the soldiers quartered in Edinburgh, and found as follows:—31 colour-blind out of 437 of the King's Own; 14 out of 177 of the 7th Hussars; and 5 out of 123 Artillerymen. Of the men under his own immediate observation, 1154 in all, no less than 65 were found to be colour-blind. After reviewing all the sources of information at his disposal, he writes:—"For my own part, accordingly, I think it probable that the number of persons in

this country as markedly colour-blind as Dalton was . . . is not less than 1 in 50; and including all kinds and degrees of colour-blindness, 1 in 20." A startling proportion, and if true, cases of colour-blindness must be within the common experience of everyone!

Further quotations from Prof. Wilson throw light, I think, on the sources of error in his investigations. At p. 69 he says: "The investigation was made by daylight, in the latter part of October, 1853, and as the scanty leisure accorded to a soldier in a short winter day could not largely be encroached upon, it was impossible, though some hours were devoted daily by Mr. Dun and myself for nearly a fortnight to the inquiry, to make other than a rapid examination of each individual." And again: "In so rapid an inquiry as I was under the necessity of making, only the more prominent cases could be detected, and timorous, sulky, obstinate, or unwilling witnesses had frequently to be dismissed, though their cases were suspicious, rather than prolong the detention of a company or troop of their fellow-soldiers, who were waiting to be examined man by man." He does mention that the "catalogue of names for colours was in all cases exceedingly scanty," and that he took care to specially examine those "who distinctly betrayed a tendency to confound red or brown with green." Much attention was given to Prof. Wilson's book at the time of its publication in 1855, and his statistics have only within the last few days been quoted.

In opposition to the opinion of Prof. Wilson I will bring forward evidence to show that colour-blindness is an exceedingly rare peculiarity, and, further, that large numbers of cases are liable to be classed as colour-blind unless both time and care be bestowed on the examination. In addition to my own opportunities of observation in the past three years, Mr. Oliver Pemberton of Birmingham, Mr. C. Puzey of Liverpool, and Mr. Page of Carlisle, have kindly answered my inquiries as to their experience during the many years they have examined men applying for employment on the London and North-Western Railway. Mr. Pemberton writes:—"My experience is that it is of excessive rarity, and I have examined many hundreds in the course of twenty-five years." Mr. Puzey says:—"I have not found it common. Sometimes I have met with it, and sometimes when I thought I have had a case I have found that the fact was merely that the man did not know the names of colours." Mr. Page, whose experience dates from the opening of the Lancaster and Carlisle Railway, writes:—"Although I have no written record, I can very certainly say that I have met with only three cases of well-marked colour-blindness, out of the many hundreds whom I have examined. I have often found men very hesitating, and in more than one instance I have supposed I had a case of colour-blindness before me, when in reality it was nothing more than ignorance of the names of colours." Out of some 800 men examined by myself, in my capacity of surgeon to the London and North-Western Railway, I have not found one single instance of true colour-blindness. This experience is fully confirmed by Dr. Jasper Macaldin, who, in *The Times* of Dec. 30th, says that he has met with only one case of colour-blindness in a period of five years among all the men seeking employment at the St. Pancras Station of the Midland Railway.

But while this evidence, unsupported though it be by statistics, would seem to prove that instances of real colour-blindness are few and far between, there is yet a large number of cases which may easily be confounded with it. Some men have no knowledge whatever of the names of colours, although able to group different things of the same colour together. They explain their ignorance by saying they have never had anything to do with colours, or that they have never been taught them. They recognise that a certain colour placed before them is of the same hue as the grass, the cloudless sky, or a soldier's coat, but beyond this they cannot go. I have met with persons who had no idea that the sky was blue, or the grass green, and among them an Irishman who had never heard of the national colour of his own "Emerald Isle." There are other cases, much more numerous than the last, in whom the recognition of colours is hesitating and slow. Green may be spoken of as blue by one, red as green by another, and the name given be persisted in until the man be asked to compare the one before him with some familiar or all-prevailing colour, such as the grass or sky, when his mistake may be recognised at once, or more slowly if he be stupid or unlearned. He tells you he knows the colours quite well, but that he has hardly ever had occasion to name them.

I cannot help thinking that such cases as these have often been mistaken as instances of colour-blindness. It certainly is within my own experience that errors of this kind may creep in unawares unless time and care be given to the examination of those who are ignorant, stupid, or nervous. Putting aside the cases of colour-blindness found by Dalton, who, being himself colour-blind, must surely have been an unlikely man to make an accurate examination of the appreciation of colours in others; and even allowing that the remaining instances quoted by Dr. Wilson from foreign observers be true, and dependent, as he has himself remarked, on the strange "concentration of examples of colour-blindness in single spots"; it seems highly probable that the large proportion discovered by Prof. Wilson may have been due to his want of attention to individual ignorance of names. Notwithstanding his statistics, I think it may be established from the evidence here brought forward that true colour-blindness, such as Dalton had, is but very rarely to be found among males in this country.

New Cavendish-street, W.

CLINICAL REMARKS ON DIFFUSE SARCOMA OF THE UTERUS.

By JOHN CLAY,

OBSTETRIC SURGEON TO THE QUEEN'S HOSPITAL, BIRMINGHAM.

(*Concluded from p. 6.*)

THE subjective and objective phenomena furnished by the patients whose epitomised history I have given you supply a tolerably fair account of the symptoms of this interesting disease, and are sufficiently explicit to require only brief comments upon them. The ages of the patients and the regularity of the menstrual periods show that in the majority of the cases the disease commenced during the period of sexual vigour. Only one case occurred nine years after the cessation of the menses. It is not evident that difficult parturition or abortion had any connexion with the causation of the disease, as, on careful inquiry into the character of the labours, they may be generally pronounced as having been very good. Most of the patients had lived the greater part of their lives in the country, and were fairly tall, well-proportioned, and well-developed women. In each case it was on account of suffering from menorrhagia that the patients were led to apply at the hospital for relief. The date of the appearance of this symptom in all the married cases was uncertain. The discharge was first noticed to be increased in quantity at the regular periods; after two or three months the duration of the periods was also found to be increased; and after a few months the discharge became almost continuous, so that there seemed to be scarcely any intermission, and in the intervals which did occur there was an abundant watery discharge, this, especially later in the disease, being more or less freely tinged with blood. It would appear that in diffuse sarcoma there is always menorrhagia; while its absence in the fibroid form is more easily explained by the nature of the tumour, and the fact that sloughing and ulceration of it have not occurred. The important point to be borne in mind is, that you must not consider an increased flow of blood at the menstrual periods, constituting menorrhagia, to be the result alone of general causes (a conclusion which has become more prevalent of late), but that when it may be considered fairly chronic, and when it is alternated with watery discharges, you must suspect that it arises from local causes, and therefore demands careful and special investigation. When the disease has existed some time, the patient is generally very pale; there is also the peculiar sallow colour so marked in advanced malignant disease, this condition being chiefly caused by the excessive drain on the system produced by sanguineous and watery discharges. Dr. Thomas states that the great vascularity of the growths in diffuse sarcoma is the cause of these discharges, and in describing the attendant pheno-

mena he says that it rapidly proceeds to fetid ulceration. This, however, is not our experience, as the discharge was not fetid in any of the cases now under consideration, and the absence of sloughing and ulceration was often commented upon. The ordinary uterine exploration undoubtedly easily excited hæmorrhage, and probably this was occasionally produced by the contractions of the uterus; but it is a noteworthy fact that the amount of hæmorrhage was out of all proportion to the apparent ulceration. It probably may be explained by the general hyperæmia of the mucous membrane of the uterus. Sometimes a single mucous polypus gives rise to, or may be accompanied by, a profuse menorrhagia. In such a case the hæmorrhage evidently does not arise from any breach in the structure of the growth; and when the growth is removed the hæmorrhage ceases, probably because the source of irritation—the cause of the hyperæmia—is removed. It is obvious that several authors who have contributed to the pathology of this subject have confused the two forms of the disease in their descriptions. The hæmorrhage occurs more constantly in the diffuse sarcoma; while it is more occasionally met with in the fibroid form, in which it depends more upon the sloughing and ulceration of the growth than upon any local hyperæmia, and naturally varies in quantity as circumstances increase or diminish the circulation of blood in the uterus. The almost entire absence of pain seems to be an important feature in diffuse sarcoma, and is a valuable aid in the diagnosis. The pain is chiefly due to the contractions of the uterus, evoked to expel coagula formed and retained in the uterus during an increase of the sanguineous discharge. I may here mention the allegation that secondary growths in other parts of the body are likely to occur in sarcoma of the uterus; in our cases, however, there was no evidence of them. The results produced by absorption of septic material are of more probable occurrence.

You will find that the diagnosis of disease of the interior of the body of the uterus is frequently attended with considerable difficulty, especially at an early period of its development. This particularly applies to the disease we are now considering. In the diagnosis, it is advisable first to decide between the presence of the two forms of sarcoma. The fibroid sarcoma has more or less fibrous tissue entering into its composition, and consequently is harder, thus forming a more distinct tumour according to the degree in which such tissue preponderates. Therefore, if you have this kind of growth under examination, whatever may be its varying degree of development, you cannot well confound it with the diffuse form. The latter form is clearly a distinct disease; and, as far as my experience guides me to a conclusion, I may say that I have never seen this form assume a homogeneous mass, so as to constitute a distinct and increasing tumour. From the nature of its composition we must consider it a round-celled sarcoma; otherwise, from its anatomical and clinical characters, it might be regarded as altogether another disease, so different is it from the more solid form. Excluding the solid growths, by this mode of investigation the papillomata and the various forms of fibrous and sarcomatous polypi are removed from consideration; and our attention is confined to the diagnosis between cancer of the body of the uterus and chronic hyperplastic endometritis, as the phenomena to which these diseases give rise are common to diffuse sarcoma of the uterus. It is scarcely necessary to mention mucous polypus of the uterus, as the pediculated character which this generally assumes enables it to be easily recognised. Menorrhagia and more or less watery discharge are always prominent symptoms, and almost always indicate the presence of some structural lesion, and are therefore common to all the diseases just mentioned. The almost entire absence of pain serves in some degree to distinguish this disease from cancer of the body of the uterus, as the pain of the latter is excessive, and is of a neuralgic character rather than of the expulsive nature of the pain which is sometimes met with in advanced stages of diffuse sarcoma. These signs, it is evident, do not afford much diagnostic information, and we are forced to arrive at a conclusion by the only certain means—i.e., a digital examination of the interior of the uterus, and a removal of a portion of the growth for ocular and microscopical examination. I have mentioned that the os uteri in our cases was sufficiently dilated to admit the passage of the finger; but it is not always so, especially in the other diseases I have named. If, however, it is found to be closed, the os uteri must be dilated by sea-tangle or sponge tents to a sufficient extent to admit the finger. This being effected, and the finger being introduced into the uterus, counter-pressure must at the same time be made on the abdomen in order to bring the uterus within reach of the finger. If it is a case of diffuse sarcoma, we shall find upon some one part of the uterus (rarely all over it) several distinct growths, which arise from what is felt to be a thickened basis, the size of the growths varying perhaps from that of a pea to that of a hazel-nut. In chronic hyperplastic endometritis, this thickened basis, if present, is not so marked, and the growths are not so prominent, indicating, on being touched, a broader attachment, a mere roughening, as the growths do not attain a larger size than that of a grain of wheat, or at least an elevation of that size. In cancer of the fundus of the uterus, the growths at first show themselves in roundish protuberances on the walls of the uterus, which, in consequence of the encroachment on the cavity of the organ, becomes enlarged at an early period of the disease; and these growths may even be felt to protrude on the exterior of the uterus. If these growths or nodules soften and ulcerate, they might be confounded with sarcoma; but in cancer of the fundus the tendency is to produce a depression or excavation instead of a thickening of the tissue—in short, to form a large ulcer, with a somewhat hard and irregular margin; while in sarcoma the disposition of the growths is to become aggregated and to form masses, which push their way into the cavity of the uterus, and may, in some cases, be eventually expelled in consequence of a sloughing process supervening. Even here, however, we have not the excavated ulcerated surface just mentioned as peculiar to some forms of advanced intra-uterine cancer.

We are, therefore, forced to the conclusion that the existence of diffuse sarcoma cannot be determined otherwise than by an ocular or microscopical examination of a portion of the growths, removed for the purpose of examination. I say ocular, because those of you who a few days ago saw the case of chronic hyperplastic endometritis in which the curette was used, and who also saw the structures removed in the case of diffuse sarcoma, cannot but be satisfied that, upon examination of the growths removed, their nature may with some degree of exactness be fairly ascertained from their appearance alone. If we compare these growths with those removed in the case of endometritis, the latter are seen to be intensely hyperæmic, and under the microscope they show an increase of all the elements of the uterine mucous membrane—dilated follicles with abundant cell infiltration of the connective tissue,—while in diffuse sarcoma the growths are of a greyish-white colour, very vascular, and presenting a soft, brain-like consistence, and are capable of being easily crushed between the fingers. Under the microscope they are found to consist of innumerable small round cells, surrounded by intercellular substance. It is no doubt somewhat difficult to diagnose cases of diffuse sarcoma by a digital examination, but having due regard to the symptoms as a whole, and to the appearance of the growths removed, we may in many instances fix the nature of the disease by this means alone. It is but right, however, to say that ulceration and sloughing of the mass may so alter its appearance that the use of the microscope may be required for an absolute decision. Then, noting the absence of cancer cells and of cells peculiar to other growths, the true nature of the case is at once demonstrated.

The treatment consists in removing the growths by means of the curette. I employed Sims's, which in every case completely fulfilled my expectations. Assuming that the os is dilated, and having by previous examination ascertained precisely the seat of the growths, the curette is to be applied cautiously to this part, going over all the diseased surface. The action of scraping removes the growths from the uterus, and brings them into the vagina, whence they may easily be dislodged by using a free stream of water by means of Higginson's syringe. After each operation a smart hæmorrhage followed, and with the view of arresting this, and of producing a favourable change in the diseased parts, a solution of perchloride of iron was injected into the uterus. This generally stopped the hæmorrhage, and promoted a more normal condition of the interior parts. The results of this method of treatment were so satisfactory that the patients were generally able to be placed in a few days on the list of out-patients. In these cases insufflation

with pepsine was used afterwards. When from its use the pain became very severe, which occurred after three or four applications, powdered nitrate of silver with charcoal in powder was used with the insufflator, and proved efficacious for a time, but, as previously stated, the disease generally returned. It is of course necessary to support the strength of the patient, and to remove the anæmic condition, as far as possible, by the use of a generous diet, aided by the administration of tonics, of which iron in some form should be the chief.

ON PHLEGMONOUS SYPHILIDES.

BY FREDERICK TAYLOR, M.D.,

ASSISTANT-PHYSICIAN TO GUY'S HOSPITAL, AND PHYSICIAN TO THE EVELINA HOSPITAL FOR SICK CHILDREN.

IN THE LANCET of Nov. 4th, 1876, Dr. Thomas Barlow describes a case of congenital syphilis, in which there occurred, besides the usual macular lesions, a number of subcutaneous abscesses. These he proposes to call "phlegmonous syphilides," and points out the characters which distinguish them from ordinary boils, from gummata, and from the "scrofulides phlegmoneuses" of Hardy. On reading his account I was at once reminded of some cases of a similar nature which were under my treatment among the out-patients at the Evelina Hospital; and on looking over my notes of congenital syphilis, I find two cases in which these lesions occurred. They were characterised by the formation of globular inflammatory swellings, which rapidly matured, discharged a thick, green, ropy pus, and as rapidly healed, leaving only a small cicatrix. Their want of resemblance to ordinary boils, or to gummata, was striking. Once, indeed, some of these infiltrations subsided without suppurating; but that does not stamp them as of a different nature from those in which the process was complete. Once, also, black blood was said by the mother to have escaped with the pus. In an article in the *Gazette des Hôpitaux* for Aug. 1st, 1876, M. Bouchut has described multiple abscesses of the cellular tissue in infants as dependent upon three diatheses—the scrofulous, the syphilitic, and the puerperal. In the syphilitic variety they appear, he says, as small hard nodules in the subcutaneous tissue, which soften and fluctuate, but do not burst for perhaps two or three months; the pus is small in quantity, of a yellowish sanious character, and the opening remains livid and fistulous for some time prior to closing. In the cases that follow, it will be seen that the suppuration was of a different character and much more rapid. My notes of the cases are necessarily somewhat fragmentary, but the cases will be of interest in connexion with that recorded by Dr. Barlow.

CASE 1.—E. J. M——, a girl aged four months, was brought on June 10th, 1873, with an eruption which had already lasted ten weeks. It was of brown-red colour, occupied the face, neck, chest, buttocks, vulva, and thighs, and was in other respects characteristic of congenital syphilis. There were excoriations and fissures round the mouth. The child had a feeble, hoarse cry, and husky cough, and snuffling; there was a thick brown fur on the tongue. A grain of mercury with chalk was ordered three times a day, and black wash was applied to the abrasions of the skin. The next week the ulcerations on the buttock were rather deeper, but the child was otherwise much improved. On June 24th there were small, dull-red, elevated, suppurating lumps on the head and neck, which, according to the mother, lasted two or three days and then burst, discharging blood and pus, the blood being black; the buttocks were healed. The following week, July 1st, there were large dull-red abscesses on the neck, and one on the right thigh; and on July 8th, it is stated that some of these abscesses had broken. The grey powder was taken throughout, and continued for another month, but I have no further notes bearing on the point in question.

CASE 2 is a better-marked instance of the lesion. S. K——, a girl aged thirteen weeks, was first seen on Oct. 18th, 1872, and presented the conditions characteristic of congenital syphilis. There were discharging sores on the buttocks, head, eyelids; sores on the lips; desquamation of the soles and palms; husky voice and snuffling. On Oct. 25th the lips were fissured in radiating lines; the skin of the buttocks and about the anus was abraded in numerous round and irregular patches; the skin of the hands was wrinkled, loose, and shiny. On Nov. 1st these sores were party healed, and the snuffling was less. On the right thigh was a thick subcutaneous lump, from which it was stated a quantity of matter had escaped two days previously; on the left buttock were three subcutaneous lumps, movable on subjacent parts, but attached to the skin, which was somewhat livid over them, and presented on one a small pustule. On Nov. 8th the three lumps had disappeared without breaking, but there was a small abscess, discharging a tenacious greenish-yellow matter. On the right eyelid was a swelling resembling a suppurating sebaceous cyst, and a similar one had burst on the right side. On the left thumb was a red lump with a pale yellow sloughing centre. By the next week these abscesses had burst, discharging what appeared to be ordinary pus; but others were forming on the forearm and on the thigh. On Nov. 22nd I have this note:—"The abscesses heal the day after bursting; only three have appeared this week; formerly two or three appeared in a day, lasting three or four days, and then bursting." The child was treated with grey powder from the first.

St. Thomas's-street, S.E.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

KING'S COLLEGE HOSPITAL.

THE TREATMENT OF ACUTE PNEUMONIA, ILLUSTRATED BY SOME RECENT CASES.

(Under the care of Dr. JOHNSON.)

FOR the notes of the following case, which we have somewhat abridged, we are indebted to Mr. Taylor, one of Dr. Johnson's clinical clerks.

CASE 3. *Acute double pleuro-pneumonia; severe pleuritic pain; partial relief from a small venesection; great relief from leeching; recovery.* — Leah E——, aged twenty-eight, a sewing-machinist, was admitted on Dec. 14th, 1876. While at work on Dec. 13th, at 10 A.M., she felt sick, had sudden acute pain in the left side, and fainted. She recovered in a few minutes, but had still the pain in the left side, worse on deep inspiration, and had headache. She had "cold shivers" all the evening, and at night she began to cough, with thin, frothy expectoration; the cough caused great pain, which kept her awake all night. She felt thirsty, and vomited up all she took. Bowels confined. She had not been exposed to cold or wet. The room she had worked in was warm.

On admission, her temperature was 103·6°, and pulse 135. She complained of shooting pain, like a knife, in the left lower lateral region, and of headache. Breathing rapid; face flushed, clammy; normal percussion note over both sides of the chest; pleuritic friction heard over the region of pain; breathing harsh all over.

Dec. 15th. — Respiration 36, short; pulse 144; temperature 103·6°; tongue covered with white fur, red at the edges; expectoration thin and watery, frothy; still the pain in the left side and in the left clavicular region; headache; crepitation and friction-sound at the left base, with slight dulness. Ordered six ounces of brandy; chest to be poulticed back and front; and to take an ounce of ammonia and sulphuric ether mixture three times a day.—Evening: Temperature 104·5°; respiration 42; pulse 132.

16th.—Pulse 144; temperature 104°; respiration 48. Face flushed, rather dusky; still in great pain; expectoration of yellowish-red colour, thin and frothy; diminished expansion

over right side in front; partial dulness over both lower lobes, more marked on right side; bronchial breathing and fine crepitation at right base; bronchial breathing not so marked over left base, with fine crepitation; bronchophony over both lower lobes, more marked on right side; coarse crepitation heard over right upper lobe in front. She appeared so ill that the house-physician, Mr. Tirard, thought she would die. He opened a vein in the arm and took four ounces of blood. After the venesection the respiration fell from 52 to 42, and the pulse from 138 to 126. The brandy was increased to twelve ounces in the twenty-four hours, and the ammonia mixture to be given every four hours. In the evening she was seen by Dr. Johnson, who, finding her in great distress, with severe pleuritic pain in the right side, ordered four leeches to be applied over the seat of pain.

17th.—The pain on the right side was speedily and completely removed by the leeches. There is now a sharp pleuritic pain on the *left* side; dulness on percussion over both lower lobes; tubular respiration on right side; fine crepitation on the left. Respiration 42; pulse 130; temperature 103·8°. To relieve the pain on the left side morphia was subcutaneously injected twice during the day, first one-sixth then a quarter of a grain.

18th.—The physical signs were unchanged on the right side; over the left base the respiration was tubular. Respiration 40; pulse 114; temperature 100°. The pain had been lessened, but not completely removed, by the morphia injection. Three leeches were now applied over the painful spot, and the following mixture was ordered in place of the ammonia: one-twelfth of a grain of hydrochlorate of morphia, and ten drops of ipecacuanha wine, in water, every four hours.

19th.—The pain was much relieved by the leeches, but is still rather severe when she coughs. Pulse 114; respiration 32; temperature 100·2°.

From this time the progress was uninterrupted. On the 21st the temperature was normal. The abnormal percussion and respiratory sounds passed away, and the patient is convalescent.

Dr. Johnson remarked, upon this and the two cases reported in our last number, that it is interesting and instructive to compare these three cases of acute pneumonia. In one case (Case 2) the disease, although involving the whole of one lung, ran its course to a speedy and complete recovery without requiring or receiving any active treatment. It is a matter of daily experience that uncomplicated acute pneumonia occurring in a previously healthy subject runs its course like an attack of fever, terminates favourably in about ten days, and requires no treatment beyond judicious nursing and feeding. On the other hand, we sometimes meet with cases of such exceptional severity that life can be saved only by prompt and energetic treatment, and of this statement Cases 1 and 3 form instructive illustrations. In Case 1 the dyspnœa and general distress, with cyanosis, were promptly and permanently relieved by venesection. One obvious way of explaining the *modus operandi* of venesection is by its lessening the volume of blood, and therefore the respiratory work of the healthy lung. Another point to be noted is that by lessening the systemic venous engorgement the risk of a serous exudation from the distended bronchial veins and capillaries into the tubes of the healthy lung was diminished. The bronchial veins, be it remembered, belong to the systemic venous system; so that when the right cavities of the heart and the large venous trunks are distended, the bronchial veins and capillaries participate in this engorgement, and a passive serous exudation into the bronchial tubes, or an actual rupture of vessels and bronchial hæmorrhage, is a common result.

In Case 3 the distress and the danger were dependent mainly on the unusually severe pleuritic pain, and this was relieved in a very remarkable degree by the leeching. The dyspnœa had been to some extent relieved by the small venesection, when the application of four leeches completely removed the sharp pain on the right side. The attempt to remove the pleuritic pain on the left side by the subcutaneous injection of morphia afforded an opportunity of comparing the influence of that treatment with that of leeching. The pain, although it was lessened by the morphia, was not completely removed, and the subsequent application of three leeches afforded much more relief than had been obtained from the narcotic injection. Dr. Johnson remarked that the leeches on the left side were less successful than on the right, probably on account of their application having been delayed for twenty-four hours while the morphia injection was tried. The severe pain of acute pleurisy or pericarditis is in most cases more promptly and decidedly mitigated and removed by the early application of leeches, followed by hot poultices, than by any other means.

With regard to the use of brandy in these cases, it was remarked that there is no inconsistency in abstracting blood and giving brandy simultaneously. The brandy is to be looked upon rather as an anæsthetic and a sedative than as a stimulant. In ordinary cases of pneumonia alcohol in any form is unnecessary; but when with great rapidity of the pulse and breathing there is much nervous excitement and restlessness and a tendency to delirium, a moderate cautious use of brandy is often strikingly beneficial. This was well seen in a case admitted since the three above recorded. Anna W——, aged twenty-three, was admitted with acute rheumatism, which became complicated with pericarditis and double pleuro-pneumonia. The pain of the pleurisy and of the pericarditis was much relieved by leeches. She was taking three times a day a grain of opium with two grains of quinine, but in spite of this there was distressing excitement and inability to sleep. To meet this, Dr. Johnson prescribed brandy, first six ounces, and then nine ounces, in twenty-four hours. The result was that she slept well the first night after the brandy was given, and has continued to do so since; the temperature, the pulse, and the respiration simultaneously began to fall; and she is now steadily progressing towards convalescence.

WESTMINSTER HOSPITAL.

ORCHITIS TREATED BY PUNCTURING THE TESTICLE.

(Under the care of Mr. MACNAMARA.)

THE treatment of acute orchitis by means of puncturing the testicle having within the past twelve months attracted a considerable amount of attention, the following notes, for which we are indebted to Mr. George Shaw, will doubtless prove of interest. The subjoined cases, as far as they go, certainly seem to present very satisfactory evidence of the value of puncture, while, according to Mr. Macnamara's wide experience, such instances are by no means rare.

CASE 1.—H. C——, aged forty-one, a gold refiner, was admitted on Oct. 17th last with acute inflammation of the left testicle. He was a temperate man and a hard worker, but out of health in consequence of being constantly exposed to nitro-hydrochloric acid fumes. On Oct. 11th he strained himself while at work, and shortly afterwards his left testicle became swollen and very painful, so that he was quite unable to continue his work, and, as the treatment he received at his house did not relieve him, he was taken into the hospital. Ice was kept constantly applied to the inflamed gland, and the ordinary saline purgatives were administered. Under this treatment the symptoms subsided, but on the 24th, without any known cause, the orchitis returned, and, on the following day, during his visit to the hospital, Mr. Macnamara ran a grooved needle into the testicle, and allowed a few drops of serous fluid to escape externally along the groove, after which the instrument was withdrawn. The relief was both immediate and permanent; the inflammatory symptoms all passed away, and the patient left the hospital on Nov. 3rd perfectly cured.

CASE 2.—Thomas W——, aged thirty-five, was admitted on Nov. 4th suffering from long-neglected gonorrhœa and acute inflammation of the right testicle, the latter having come on suddenly on Oct. 29th, from which time he had been in very great pain. Immediately after admission the house-surgeon, Mr. Poynder, passed a grooved needle into the testicle, and, after a small quantity of fluid had escaped externally, withdrew the needle. The patient alleged that within five minutes the pain had entirely gone, and did not return again from that time. He left his bed on Nov. 12th, and left the hospital cured on Nov. 20th.

In reference to these cases Mr. Macnamara remarked that they were fair examples of the effect produced by puncturing the testicle in acute orchitis. So far as he was concerned he was unable to determine in any given case if the inflammation was confined to the epididymis, or affected

only the proper structure of the testicle; but it seemed to him scarcely probable that inflammation, if attacking one of these organs, would not extend to the other, and under any circumstances it followed, almost of necessity, that an effusion of fluid from the distended bloodvessels would escape into the tunica vaginalis, and perhaps, also, into the tunica albuginea. Every surgeon who had punctured the testicle in acute orchitis must have observed that the escape of a small quantity of fluid along the groove of the needle was not unfrequently followed by instant relief of the pain and a diminution in the hardness of the testicle, and it had always appeared to him that the relief was analogous to that afforded by diminishing the tension of the eyeball in acute glaucoma. Mr. Macnamara further remarked that he could claim to speak with some degree of confidence on this subject, for, some years ago while riding, he was thrown forward on the pommel of his saddle, and injured his left testicle. Symptoms of orchitis soon set in. Happily having been informed by his friend, Dr. Herbert Baillie, only a short previously of the case of an artillery officer whose testicle had been punctured for orchitis after the plan recommended by Mr. Henry Smith of King's College, Mr. Macnamara got Mr. Culcliffe to run a grooved needle into the inflamed and injured testicle. The relief in his own case not only instantaneous, but was permanent, and for these and other reasons he said he had never hesitated to employ the same treatment on his patients. He himself had never seen any but favourable results follow this mode of treatment, though, of course, he was not prepared to say it was always curative. He added that he felt himself under a personal obligation to Mr. Henry Smith for having introduced into modern practice the plan of puncturing the testicle in cases of acute orchitis, and he could with confidence recommend his pupils to follow this treatment in similar cases, because there are few diseases in which pain can be more effectually and speedily removed.

TUNBRIDGE WELLS INFIRMARY.

UNUSUAL FRACTURES.

FOR the notes of the following remarkable cases we are indebted to Mr. Cleland Lammiman, house-surgeon.

CASE 1. *Separation of the basial epiphysis of the scapula.*—M. T——, a girl, aged five years, was taken to the infirmary by her mother on Dec. 6th. The mother stated that while walking with her child along the middle of the road she was suddenly surprised by the rapid approach from behind of a light cart. Seeing her danger, she violently lifted up the child by the forearm, and fled to the pavement.

Upon examination, no injury could be found in the upper extremity, but even upon taking hold of the child's wrist crepitus of a very marked character could be detected. There was nothing unusual about the shoulder, which retained its symmetry, but whilst the joint was being examined the crepitus seemed to be more intense, and as the shoulder-joint seemed quite uninjured, the inquiry was pushed to the scapula, the neck and spine of which, with all the processes, seemed unbroken. On passing the finger along the spine to the base, a fracture was discovered extending its whole length, separating, in fact, the whole basial epiphysis, with the exception of the posterior inferior angle, over which the latissimus dorsi played. The rhomboid muscles strongly drew the epiphysis towards the vertebral column, separating the fragments quite three-quarters of an inch. A figure of 8 bandage was placed round the shoulders, and the arms fastened in that position by a starched bandage.

CASE 2. *Horizontal fracture of astragalus, and dislocation of the foot outwards.*—T. C——, a stonemason, was moving a large flat slab of stone, when he found that he had allowed it to slant too much, and that he must release his hold. In doing this he made a great effort to escape, but the slab caught him in its fall, and jammed his foot against a smaller stone on the ground. Mr. Hemming, who saw the case, found the tibia and fibula quite uninjured, but the inner malleolus formed a large tumour on the inner side of the ankle, and the foot was dislocated much beyond the external malleolus. It seemed evident that there was a horizontal fracture through the astragalus, the lower fragment of which was retained by the astragalo-calcanoid ligament, and accompanied the rest of the bones of the foot in its dislocation outwards; the upper fragment was retained between the two uninjured malleoli. Upon placing him under the influence of chloroform, administered by Mr. Cambridge, the deformity was at once removed by extension, the foot returning to its position with an audible grating, and the other bones were found quite uninjured.

HÔPITAL DE LA PITIÉ, PARIS.

STRICTURE OF THE ŒSOPHAGUS; GASTROSTOMY; RECOVERY.

(Under the care of M. VERNEUIL.)

THE operation of gastrostomy was performed for the first time by Sédillot in 1849. Since then, this operation has been practised a large number of times in England, America, and in Germany, but before the present case it had never been followed by recovery. It is true that, in the great number of cases which have hitherto been recorded, the operation was undertaken where the stricture was due to some morbid growth of the œsophagus. The account of the case is briefly as follows:—

R. M——, seventeen years of age, of somewhat slender build and childish appearance, inadvertently swallowed on the 4th February, 1876, a solution of potash, which caused a very severe burning sensation in the throat. Strong fever came on, and deglutition was excessively painful, and almost impossible during a few days. After two weeks the œsophagitis subsided, but the youth continued to experience great difficulty in swallowing solid food. On the 31st of March he was admitted into the Pitié, into the service of M. Dumontpallier. Under the care of this gentleman, dilatation of the œsophagus was attempted during two months by means of various instruments, and finally, on the 24th May, seeing that the general condition of the patient was gradually growing worse, he was passed into the wards of M. Verneuil. At this time swallowing was almost impossible, and he threw up what he took after a short interval. He had lost a great amount of flesh, and was almost exhausted. The skin was cold and cyanosed towards the extremities, and the pulse was very weak. Hunger and thirst were persistant and very trying. Upon exploration the stricture was found to lie seven centimetres down, but it was found impossible to make way into the stomach. Nutrient enemata were given in order to gain time, but finding that the general condition was getting less and less satisfactory, M. Verneuil decided upon operative interference. A last attempt to pass the stricture, under chloroform, was made, and was crowned with success. This caused temporary relief, and allowed the patient to take some nourishment. On the 10th of July, however, the stricture became, seemingly without any reason, suddenly and completely impassable. The axillary temperature at this moment was 35° C. (95° F.)

The patient having implored M. Verneuil to do something in order to relieve him, it was decided to make an opening in the stomach on the 25th of July. Having taken all necessary antiseptic measures, an incision five centimetres in length, at the left limit of the epigastrium, parallel to and two centimetres from the cartilage of the eighth rib, was made. The several tissues were successively incised, and, lastly, the peritoneum having been opened, the stomach was laid bare. This organ was then drawn to the orifice of the wound by means of a pair of forceps, and firmly sutured to its edges, without an opening having been made. This method is superior to that in which the stomach is incised before being fixed to the edges of the wound, as in the former there is no danger of any blood falling into the peritoneal cavity. A buttonhole opening was then made in the wall of the stomach. A soft red caoutchouc sound was next placed in the stomach in order to keep the opening patent and to allow the free introduction of food. A plug was placed in the extremity of the sound, in order to prevent any air penetrating into the cavity of the stomach. Antiseptic dressings were then applied to the wound. Evening temperature, 35·6° C. Slight pain. Pulse normal. At midnight 140 grammes[1] of milk were injected, but they produced

[1] One gramme is equal to 15·4 grains.

vomiting, and a portion of it was thrown out by the tube in a semi-coagulated state.

July 27th.—Complains of some difficulty of breathing. Nothing wrong on auscultation. Complains always of pain. Pulse feeble; temperature low. Injection of bouillon and Bordeaux wine every four hours. Slight jaundice. Wound healthy.

28th.—Jaundice more pronounced to-day. No fever. Stomach painless. Bears the injections well.

29th.—Pulse and temperature higher; breathing freer; no cough.

30th.—General condition the same. Slight blush round the wound; no erysipelas.

August 1st.—From this date the patient continued to recover rapidly. He gained flesh, his cheeks filled out, and he became cheerful. The injections do not inconvenience him in the least.

15th.—Wound completely healed.

The following table gives an idea of the rapid manner in which the economy repaired its forces:—

July	26th.	Patient weighed	33	kilogrammes.[1]
Aug.	18th	,, ,,	34	,,
	21st	,, ,,	34·4	,,
	25th	,, ,,	35·5	,,
	31st	,, ,,	36	,,
Sept.	8th	,, ,,	37·5	,,
	14th	,, ,,	39	,,
Oct.	4th	,, ,,	40	,,
	20th	,, ,,	42	,,

The nutrient injections into the stomach only determine a sensation of cold or heat. The absence of saliva amongst the ingested articles does not seem to interfere with the functions of digestion, as every kind of food seems to be assimilated with an equal degree of facility. Eminent physiologists are now utilising this subject for the purpose of making researches on digestion. At a later period we hope to publish the result of their researches, and the ultimate issue of the operation, which, up to the present moment, may be considered a complete success.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

THE ordinary meeting of this Society was held on the 9th inst., Dr. Cotton, V.P., in the chair. Two communications were read, each dealing with isolated but rare cases, the one being a case by Mr. Hussey, of Oxford, of successful removal of a large parotid tumour of slow growth from a patient seventy-three years of age; the other a remarkable case of morphœa nigra and sclerema, by Mr. Gaskoin. Owing to the length of the latter's paper the time for its discussion was very limited, but an opportunity will be afforded for further debate on the subject of scleroderma at the next meeting of the Society, when another paper on the same subject is to be read.

Some plaster casts, illustrative of Mr. Spencer Watson's case of neurectomy, read on Dec. 12th, were exhibited at the meeting.

The following is an abstract of a paper on a "Large Pendulous Tumour from the Cheek, removed by operation," by Mr. Edward Law Hussey, F.R.C.S., senior surgeon to the Radcliffe Infirmary, Oxford. A gentleman, seventy-three years of age, was the subject of a parotid tumour of unusually large size, which had been growing slowly for more than fifty years, and hung down far below the jaw, and rested on the clavicles and shoulder. He had taken the opinion of a medical practitioner in an early stage of the growth, but never consulted one in subsequent years, notwithstanding the increase of the incumbrance and the attending deformity. In May last he had a sudden and alarming attack of hæmorrhage from the superficial vessels, and after this the tumour was observed to be growing more rapidly. After a consultation with Mr. Prescott Hewett, who concurred in the opinion given of the practicability of the operation, and advised the performance without delay, the tumour was removed by Mr. Hussey, and the patient recovered perfectly. The operation was attended with profuse and almost fatal hæmorrhage. Great difficulty was experienced in securing the large arteries in the pedicle. It was found to be impossible before operating to compress the pedicle in any way so as to arrest the hæmorrhage which was to be expected upon division of the vessels. In general structure the tumour seemed to be of the usual nature of parotid tumours; the older part was of firmer consistence and darker colour. It was free from cartilage, and from purulent or malignant deposit. The weight was three pounds avoirdupois. The preparation had not been preserved for minute examination.—Dr. BLACK mentioned that he had known Mr. Hussey's patient for upwards of forty years, and he corroborated the statement that even at that early period the tumour was present, although of small size. He had seen him on many occasions since, and had noticed the gradual increase in the size of the growth, and he could testify to the perfect success of the operation.—Mr. BEGLEY had also known the patient, and confirmed the account already given.—Mr. HUSSEY regretted that he had been unable to preserve the tumour owing to the friability of the growth and the circumstances attending the operation. Certainly the chances of the recovery from such an operation were very slight in a subject of so advanced an age, and when to this was added the risks encountered from hæmorrhage and the entrance of air into the veins, a favourable result could hardly have been anticipated. Had not the pedicle proved so tough he would have secured it by a single ligature before proceeding to the removal of the growth. He did not think that the chloroform had any effect in producing the collapse during the operation, which was due evidently to the profuse hæmorrhage. There was indeed such cutaneous anæsthesia that it was really not necessary to have administered chloroform at all except to calm the patient's fears.—Dr. BLACK added that the possibility of entrance of air into the veins during a surgical operation ought never to occur.

Then followed a paper "On a Case of Sclerema Adultorum," by Mr. GEORGE GASKOIN. The case was that of a married woman, aged forty, who experienced a mental shock when six months advanced in pregnancy, and was subsequently affected with certain stains or patches on various parts of the body, which had generally the character of morphœa. They were large in size, and in shade of colour mostly dark, but varying from dark-red to yellowish-white, with much diversity of tint. These patches were extremely hard, and were the seat of pain, anæsthesia, pruritus, and constriction. A certain proportion of them were marked by a notable subsidence of the central portion of the patch. There was besides a temporary œdema and condition of tenderness. The stains were far more numerous on the lower than on the upper limbs. The region of the head and face were alone exempt. The constitutional symptoms were not strongly marked, but assimilated to those of anæmia. During the course of the past year these patches have gradually disappeared, and have given place to an intense staining of the general integument, so as to rival the colour of a negress, but by no means with the same uniformity of tint, nor the same universality in its distribution. It affects the greater part of the body, but more the lower half and the limbs. It is attended by a condition of sclerema which answers generally to the sclerema of Thirial—i.e., the limbs are like logs of wood; they feel firm and icy cold, like those of a corpse, and the skin is tightly stretched, with a glossy, shining superficies. The sclerema affects not only the integument, but the muscles, aponeuroses, and tendons; the joints are painful and contracted, and there is also pain in the bones. The origin of the complaint seems to be tubercular. Certain knots or aggregations of tissue are found in the deep and superficial tissues. These run a certain course which anticipates the tension and the hardness; in the process of their development a blackness is added to the skin. The sclerema appears to be of a mobile character. It is true that all the limbs are affected and much of symmetry is discerned, but in point of time there is inequality; the invasion of these parts is not simultaneous. This disorder seems influenced by damp and cold; it appears to have

[1] One kilogramme is equal to 2 lb. 3 oz. 120 grains (nearly).

something in common with the well-known arthritic affections. The urine is clouded with lithates; the catamenia are scanty and abnormal. In other respects the functions are not disturbed, and the patient's strength, after three years' illness, is not materially impaired. — Mr. SEDGWICK, who had seen the case, pointed out that there were two points of interest in it—viz., the sclerema and the pigmentation. The latter appeared first in patches, depressed in the centre, and within twelve months these patches had become merged in the subsequent condition of sclerema with diffused pigmentation. In a somewhat similar case—one of true keloid—he had noticed a like appearance of patches, which disappeared as the skin improved in nutrition. There was doubtless a pathological relation between sclerema, morphœa, and keloid, which, in their early stages, are closely allied. In the present case he would especially point out the impairment of cutaneous sensibility at an early period in the case, and the occurrence of severe stabbing pains in the arms and legs, pains resembling those met with in locomotor ataxy. These pains were accompanied by superficial tenderness, which, after a time, was succeeded by impaired sensibility. The large but unequal amount of pigmentation was an interesting feature. He had tested the limbs electrically, and found in all of them the muscular irritability much reduced, more in the left than the right, and most of all in the left leg. Mr. Sedgwick also referred to examples of excessive pigmentation in pregnancy in unusual seats, and to the pigmentation of syphilis and Addison's disease.—Dr. TILBURY FOX said that the clinical history of these cases was now tolerably well known. About a year ago Dr. Van Harlingen, of the United States, published a paper on the subject of sclerema, in which he referred to some sixty or seventy published cases. In all Dr. Fox had been able to find about one hundred on record. The point of interest in the present case was the proof it afforded of the identity between morphœa nigra and scleroderma, a connexion which has been shown to exist by Dr. Fagge, although denied by Van Harlingen. As Dr. Fagge said, scleroderma must be regarded as a diffused and morphœa as a localised sclerisis. Writers said but little about the treatment of these cases, which are generally regarded as hopeless; but from his own experience, Dr. Fox was persuaded that measures directed to improve the general health were the most valuable means of treating these cases.—Dr. BLACK commended the author for his painstaking record of an example of so obscure a disease; the value of suchlike records being that they furnished facts for future research, which would lead to some light being thrown upon the true nature of the malady.—Mr. GASKOIN, in reply, agreed with Dr. FOX, that his case afforded the strongest evidence of the relation between morphœa and scleroderma. The pigmentation in this case was greater than in any other on record, and he would particularly draw attention to the occurrence of nodular swellings in the arms, which appeared and disappeared from time to time, hitherto only noticed in two cases, one by Rasmussen of Copenhagen.

The Society then adjourned.

Reviews and Notices of Books.

Clinical Demonstrations on Ophthalmic Subjects given during the Sessions of 1875–76. By J. R. WOLFE, M.D. Glasgow: Maclehose. 1877.

THIS little *brochure* by Dr. Wolfe contains four articles, each of them on subjects to which he has paid special attention. The first is on Conjunctival Transplantation from the Rabbit to the Human Subject—a proceeding that is exceedingly serviceable in some cases of symblepharon. He finds that portion of the conjunctiva which lines the inner angle covering the membrana nictitans, and extending as far as the cornea, the best adapted for the purpose, and recommends that four black-silk ligatures should be introduced and secured with a knot before its removal, so that the epithelial surface may be recognised. This is by no means an unimportant proceeding, and we have seen more than one case lost from the impossibility of determining which was the raw surface after the flap had been carefully dissected from the rabbit. The transference of the flap should be done quickly whilst the animal is living, and with as little injury from forceps as possible. The results are in some instances exceedingly satisfactory; in other cases, however, the transplanted portion sloughs in spite of all care. The second paper is on Granular Conjunctivitis, for the treatment of which he recommends successively scarification, syrup of tannin, friction, solution of atropine, and astringent collyria. In the third article Dr. Wolfe advocates the plan of removing skin flaps from other parts of the body to remedy the results of burns or other injuries about the eyelids. He makes the practical observation that for such portions to adhere they must first be thoroughly freed from the subcutaneous connective tissue. Lastly, Dr. Wolfe recommends a new form of iridectomy for sympathetic ophthalmia, in which, after the performance of a large iridectomy, the free borders are seized and fixed in each extremity of the wound. The pamphlet closes with drawings of some new instruments Dr. Wolfe has invented for treating diseases of the tear passages and for squint operations.

Recherches sur les Centres Nerveux: Pathologie et Physiologie Pathologique. Par le Dr. V. MAGNAN, Lauréat de l'Institut. Avec 3 Planches et 2 Figures. pp. 220. Paris: G. Masson.

THIS volume contains a series of ten lectures and memoirs that have been published or delivered elsewhere, but are here presented in a collected form. The first four are devoted to the subject of general paralysis, and discuss successively the microscopic conditions associated with colloid degeneration, the extent and degree to which the encephalon is affected with inflammation in this disease, and the other pathological characters of general paralysis. In these lectures M. Magnan shows that diffuse interstitial encephalitis may be accompanied at certain circumscribed points by intense irritation, causing a very active proliferation of the elements of the neuroglia and of the vascular walls. The new elements thus formed, instead of becoming converted into fibres of connective tissue, or undergoing fatty degeneration, become infiltrated with colloidal deposit, and he proceeds to describe the alterations that the middle layer of the cortical portion of the cerebrum undergoes in colloidal degeneration, and the mode in which the vessels become converted into bright highly refractive tubes, with immensely thickened walls, which become fissured by longitudinal striæ and lacunæ.

He gives the following as the characteristics of colloid substance:—It is a hyaline substance only slightly transparent, feebly refractile, with an occasional bluish reflex. It is insoluble in alcohol, ether, and chloroform. It dissolves slowly in concentrated acetic acid, is readily coloured by carmine and ammonia, but is not coloured by iodine, nor by iodine and sulphuric acid. It is not dissolved by hydrochloric acid, nor by solutions of potash or soda, unless when warmed. It is certainly neither of an oleaginous nor of an amylaceous nature. The most interesting of the memoirs is that which received the Monthyon prize in 1872, on the Comparative Action of Alcohol and Absinthe. The prolonged administration of alcohol to the dog causes marked changes in its habits and characters. It may be observed to suffer from illusions, hallucinations, and delirium, from trembling, and disturbance of the digestive organs. Post-mortem examinations exhibit various stages of steatosis of the liver, kidneys, heart, inflammatory complication of the meninges and of the spinal cord, pericardium, and coats of the stomach. Essence of absinthe, on the other hand, produces convulsive shocks in the head and anterior parts of the body, and when given in large doses it determines epileptic attacks and delirium. M. Magnan shows that when alcohol

and essence of absinthe are administered together the alcoholic intoxication first makes its appearance, and this is followed by the absinthic attack. The last memoir is on a mournful subject, since it deals with the particular form of disease and with the numbers of insane patients admitted during the eventful years of 1870 and '71 into the Asylum St. Anne, and produced by the excitement, the depression, the terror, and the inadequate supply of food during the siege of Paris. No less than 4717 patients were admitted during these two years, a great increase on the average of previous years. Melancholy, dementia, alcoholism (acute or chronic), general paralysis, epileptiform affections, and mania occurred in the proportion of 1196, 910, 793, 733, 584, 363. The work is one of interest to the general reader as well as to the specialist.

The Puzzle of Life, and how it has been put together. By ARTHUR NICOLS, F.R.G.S. With Illustrations by FRED. WADDY. London: Longmans. 1876.

THOUGH not a very happy title, this is a good little book, cleverly written by an able geologist, and well adapted for children. As a rule, we are opposed to the attempt to make a plaything of science, but we have no objection to the first steps in science being taught in earnest even to very young children. We are glad to see in many houses we visit, a little corner devoted to objects of natural history, and called "Our museum," where many a lesson can be taught and learnt with eyes sparkling, not with tears, but with gladness, from fruit and seed and shell, and even, as this book shows, from stones and bones. Here the gradual and orderly succession of the various strata, with their corresponding fossils, is given, from the Laurentian series, with their Eozoon, which Mr. Nichols unhesitatingly accepts as of animal origin, to the human fossils of the cave-dwellers. We can recommend the volume as a present to an intelligent boy or girl.

Great St. Benedict's. A Tale. By ELIZABETH THOMAS. London: John F. Shaw and Co.

IT is not the province of THE LANCET to review novels; but when novels deal with medical questions it is, we think, justifiable to break through a rule. This tale is ostensibly written to show the evils of the present out-patient system as carried on at our large hospitals, and the reader can but suppose that "St. Benedict's" is intended to represent a St. B—— more familiar to medical ears. A religious novel must always be an anomaly, and the reader of this book will be continually puzzled to know how such very deeply religious people as the hero and heroine of this tale (which is written throughout in the first person) can tolerate fiction in any form. The work is a pure fiction. There is a germ of truth, no doubt; but this germ is hidden by exaggeration and the want of knowledge of her subject which this authoress betrays.

To say that porters get tipped occasionally and that in rare instances the well-to-do rob the poor of that charity which is legitimately theirs, and that occasionally, also, mistakes are made through insufficient examination, is of course only to utter a truism. Mistakes and tipping are misdemeanours not uncommon also in private practice, and are both to be looked upon as characteristic of human frailty. In private practice also it is not rare, as everyone knows, for patients to plead poverty, or, perhaps, to forget the fee without pleading anything. These are all shortcomings which are happily exceptional, both in private and in hospital practice, and to put them forward as the rule, and not the exception, as is done here, is not justifiable, and is, we are bound to say, very characteristic of a certain sect of "Christians," who are wonderfully quick at spying out the motes in their neighbours' eyes. We hear much in this book of the pauperising effect of out-patient relief. Has it ever occurred to the authoress that there can be such a thing as a moral pauper? that the custom of preaching an absolute dependence in all things upon the higher powers, together with the suppression of all moral self-reliance, has a stunting effect upon the moral development, and leads to the forgetfulness of much of that useful and practical morality which shows itself in an ardent love of the absolute truth and perfect accuracy in the recountal of every-day occurrences?

Apart from the out-patient question there is much writing of the sensational character, and the fifth chapter, in which we are told how the heroine, a young girl, visits the room where her father's corpse is lying, alone and in the dead of night, shows a morbid craving for the horrible which is rare even among lady writers of the present day, and the perusal of which would be likely to turn many a charming young lady into an hysterical nuisance.

Our Trip to Burmah. By Surgeon-General C. A. GORDON, C.B. London: Baillière, Tindall, and Cox.

SOME two years ago Dr. Gordon accompanied the commander-in-chief of the Madras army, Sir F. P. Haines, K.C.B., to Burmah. On the real or official object of that visit the author is wisely reticent; but he exercised the faculty of observing men and manners and the striking points of the country through which he travelled, and has now embodied his notes in a handsomely got-up volume, which gives some most entertaining information concerning a people whose origin is lost in the night of time, and of whom very little indeed was known until the last few years, when our war with Burmah brought the country under the influence of that spell which Western civilisation has cast over the East. At the present time all parts are open to the English traveller, and—indubitable proof of the progress which the natives are making—excellent beer is now manufactured in Rangoon. Dr. Gordon and his fellow-travellers were everywhere received kindly, and their journey was diversified with many episodes characteristic of the country. The ethnological notes obtained are extremely interesting, while the geographical ones have a special value in view of the proposed trade route between Burmah and Western China. A chapter is devoted to a consideration of the state of the medical art among the Burmese, from which we gather that the faculty is in a condition of the grossest ignorance. No knives or instruments of any kind are used; all congenital and acquired deformities are left to nature. Amputation is never performed unless as a punishment, and then only when the member has been the active agent in the commission of an offence. The operation is performed with a hammer, chisel, and boiling oil!—a primitive and somewhat painful procedure. The number of diseases is fixed at ninety-six, and the diagnosis in all cases rests on the pulse and the date of the patient's birth, &c., while the treatment comprises incantations and charms, and the exhibition of violent remedies. The book is enriched with numerous photographs and illustrations, some of them of exceeding quaintness. As a trifling contribution to the fervid controversy which has been going on respecting scurvy and its preventives, we present the following extract from Dr. Gordon's book, which is not without significance. During the first Burmese war (1824-26) part of the British force, and the 38th Regiment in particular, suffered severely from scurvy, and "fresh beef, bread, tea, sugar, milk, beer in large quantities, yams, pumpkins, lime-juice, spruce, and pickles were all issued to the sick without benefit."

Dr. Gordon may be congratulated on the publication of this, his last, but not least, literary production.

THE LANCET.

LONDON: SATURDAY, JANUARY 13, 1877.

THE Local Government Board has at length, in the exercise of its sanitary functions, issued a circular letter to the different metropolitan sanitary authorities, reminding them that they have certain duties to perform in respect to hospital accommodation for infectious diseases. The letter, dated Jan. 2nd, states that the Metropolitan Asylums Board had only twelve beds at their disposal, and that a pressing necessity existed for hospital accommodation for non-pauper cases of small-pox, and asks what provision has been made by the sanitary authority under the thirty-seventh section of the Sanitary Act of 1866. This section gives power to the sanitary authorities of the metropolis to provide for the use of the inhabitants hospitals or temporary places for the reception of the sick. The letter, moreover, draws attention to the fact that the Metropolitan Asylums Board hospitals are essentially intended to meet the wants of the destitute class, and that non-paupers cannot properly be admitted into them, except in case of urgency and of the accommodation being sufficient without infringing on space required for paupers. Further, the letter, referring to the proportion the epidemic is likely to assume, expects that the Asylums Board will presently be compelled to limit its hospital accommodation to the patients (to wit, the destitute) it is bound to provide for; and the sanitary authorities are urged to exercise their power of making hospital provision for the large class of persons not needing Poor-law relief, but whose isolation in hospitals is necessary for preventing the spread of disease.

Four days after the date of this letter—namely, on the 6th inst.—the Asylums Board met, and the proceedings of the meeting disclosed that at that date not even the meagre allowance of 12 beds for small-pox patients, mentioned in the Local Government Board's letter of the 2nd inst., remained to them. In fact, the reports submitted to the Asylums Board from its various hospitals showed that its hospital accommodation for small-pox was for the moment exhausted, and that it had been necessary to reject patients from them during the previous week at the average rate of 28 and a fraction daily. To meet this difficulty the Board are making arrangements for taking temporary premises at Limehouse, and making certain temporary extensions at Stockwell, which will give them about 200 additional beds, and works are in progress at Deptford which will give larger accommodation. At present the various Asylums Board hospitals provide accommodation for 1400 small-pox patients, and probably, before the end of six weeks, or even earlier, the number of beds for this purpose will be raised to 2000, or thereabouts.

At the same meeting some interesting information was given respecting the reception accorded to a previous letter of the Local Government Board that had urged on the several boards of guardians of the metropolis the need for supplementing the provision made for paupers by the Metropolitan Asylums Board. Islington and Chelsea, it would appear, cannot (according to their own account) make any suitable provision for small-pox hospital accommodation in their districts; Shoreditch and Marylebone appeared to ignore altogether the distinction between paupers and non-paupers, holding that it is the duty of the Asylums Board to make provision for *all* classes of the population; Fulham is prepared to provide 16 beds for its 23,000 inhabitants.

This, then, is the position of things in the metropolis in the fourteenth week of the small-pox epidemic. The hospital accommodation is exhausted, and such further provision as the Asylums Board may make must be limited, if this be practicable, to the people for whom it is intended—that is to say, paupers; while, so far as the sanitary authorities are concerned, it is pretty obvious that they are not prepared even to supplement the hospital provision of the Asylums Board in any effective manner. In fact, there is practically a dead-lock in this matter. And it could not well be otherwise. The long silence of the Local Government Board with respect to the duties of the sanitary authorities in some sort justified these authorities in believing that the Asylums Board would again take upon itself the duty of providing hospital accommodation, irrespective of the question of pauperism. Yet it must have been obvious to the Local Government Board that any provision of hospital accommodation which the sanitary authority might be able to make would be of greatest advantage to their districts the earlier it could be made available for the reception of the sick. Moreover, it was clearly of the greatest importance to ascertain, as early as practicable, what amount of hospital accommodation could be depended upon in the districts of the several sanitary authorities. This being known, it would have been easy to determine what the probable wants of the metropolis would be, and how much of this should be contributed by the Asylums Board, how much in some other way to be determined. But, from beginning to end, the only central authority which could have helped in the matter has persistently treated it as if it were a Poor-law question only, and we have the results described. The epidemic has now got to a stage in which it is improbable that any of the authorities capable of acting, and willing to act, including the Asylums Board, will be able to provide hospital accommodation in sufficient quantity to exercise any appreciable effect upon its future course. The Asylums Board is again saddled with a task which ought not to have been thrown upon it, and which it cannot carry out with any degree of satisfaction to itself, notwithstanding that it may display the same generosity of action and self-sacrifice that it displayed in 1870–71; while the sanitary authorities of the metropolis are practically relieved of one of their most important duties.

A more discreditable picture of general administrative imbecility in respect to an epidemic than the metropolis presents at this moment cannot well be conceived. It would seem to be assumed that the vastness of the metropolitan area and its incoherent government preclude it from taking advantage of the teachings of experience. On no other ground can we explain the neglect of the experience gained in the small-pox epidemic of 1870–71. But the metropolis

ought to stand at an advantage with other centres of population in respect to epidemics, notwithstanding its patchwork of governments. The Local Government Board in this respect is, as things are, the proper co-ordinating intelligence of the metropolis, and from it should emanate what is necessary for the guidance of the several authorities. Were this central intelligence rightly exercised, the disastrous muddles, such as have characterised the metropolitan administration with respect to the present epidemic, could not have happened, at least to so egregious an extent. Take, for example, the reiterated advice of that Board in numerous reports of its Medical Department, that the permanent public provision for infectious diseases among a community should be calculated at the rate of one bed per 1000 of population. This would give for the metropolis 3600 beds. Compare this figure with the actual provision—say 1500 beds,—and a measure is obtained of the magnitude of the question involved in dealing with the exigencies of particular epidemics. Whether the estimate of the Local Government Board could be maintained for the requirements of the metropolis we are not prepared to say, but it is clearly incumbent upon that Board to deal with the metropolis as it deals with other towns in this respect. Until the metropolis knows what is really wanted for it as a whole, with regard to hospital accommodation in epidemics, there is no likelihood of this important question receiving a practical solution, and of our escaping from the discreditable confusion and inefficiency of our present arrangements.

THE Bill to prohibit the practice of medicine by foreigners in France does not improve on acquaintance. A very full account of it and of the reasons for it is given in *The Times* of Tuesday by the Paris correspondent. From this account, it appears to be a measure which raises, in a very outspoken manner, the whole question of State as distinguished from university and other like diplomas or degrees; and, secondly, the question of the recognition by one State of degrees or diplomas granted by another, or by universities or corporations in another. This question is a very serious one, and one which will have to be faced, though the facing of it may well be felt to be inconvenient, especially in a country like ours, where a system exists by which licences to practise medicine are granted by numerous bodies acting independently of the State. We cannot do better than give some of the details of the French measure, which is brought in, in the first instance, by a private deputy, M. ROGER MARVAISE, in concert with M. WURZ, the Dean of the Faculty of Medicine. The Minister of Public Instruction is as yet uncommitted. According to the Paris correspondent's letter, the Minister's desire is that the question should be submitted to an international commission, which would consider the conditions of study in different countries, weigh their value, and settle the rules of reciprocity, which, according to French authorities, does not now exist. This desire on the part of the Minister of Public Instruction is most reasonable and just, and, for our part, we heartily reciprocate the wish. It is not for the scientific and professional classes of men in different countries to be less liberal in spirit than the commercial classes, so long as guarantees are given of equivalent efficiency in the educational and examining institutions. It is only due to France to say that the present state of the law in reference to foreign medical men practising in that country is more liberal than even our own; though, as we showed last week, the terms of our own law are more considerate and less prohibitive than those of the new law proposed in France. Before giving in full the new Bill introduced by M. ROGER MARVAISE, we must give some account of the present state of the law in France and in other countries of Europe, which will the better enable our readers to make allowances for what seems at first sight, and what in the peculiar circumstances of France really is, a cruel, narrow, and unworthy measure.

In the statement of reasons for the proposed Bill, Article 4 of the Law of Ventose, Year 11, is given. It is thus couched:—

"The Government may, if it think fit, accord to a foreign physician or surgeon, a graduate of a foreign university, the right of practising medicine and surgery in the territory of the Republic."

By virtue of this article all successive Governments have granted the right of practising medicine and surgery in France to numerous foreigners on the production of a diploma conferred by a foreign university, and without requiring them to undergo the examination required of Frenchmen. A few of these have been allowed to practise in all France, many hundreds in any given department where they wished to settle, others in certain towns, particularly those serving as winter resorts. This power of the Government has always been the subject of complaint, it is said, by the French medical body. It is said to be in express contradiction to the law on the Conferring of Degrees, which reserved the power of giving degrees to State Faculties alone, with the view of preserving the value of those degrees. It is further alleged that though the Government remains free by the law above quoted to give or withhold the right of practice to foreign graduates, its liberty is more apparent than real, and the Ministers in giving the too numerous permissions have not always acted according to their real wishes; they yield to pressure.

In the statement of reasons for the Bill, it is then explained that in many countries of Europe "in order to guarantee the public against the too great indulgence of university juries independent of the State, the law attaches no professional right to the possession of the academic title of Doctor, and the right of practising medicine belongs only to those who have acquired, before a State jury, acting in the name of the State, and its members nominated by the Minister, a title distinct from that of Doctor." In the whole German Empire the title of M.D. does not confer professional rights; they appertain only to those who have obtained by State examination the title of practising physician (*arzt*). The case is similar in Holland, and in German Switzerland, and in Belgium. Now, it is complained that by the law of the year 11 graduates of some foreign universities, whose mere degrees would not entitle them to practise in their own respective countries, may come to France, and get the consent of the Government to practise in France. It is represented as unreasonable and illogical that the French State should accord to diplomas given by foreign universities generally,

without any control by the State, a value which it refuses to diplomas conferred by free but French universities. In France there are two kinds of medical men, doctors and surgeons, and these titles are to French citizens representative of different degrees of instruction and knowledge, so that the assumption of the title of Doctor, by one practising as such, and not possessing the title, is a great offence. These considerations become much stronger in the light of the fact that the title of Doctor, "which inspires sick people with confidence," is to be had "abroad," and is procured freely from abroad, even by French surgeons who could not obtain it in France. This practice, according to the statement of reasons, is the more reprehensible because these titles of foreign universities, not giving the right to legal practice in the countries in which they are given, are almost always of no scientific value, and are given sometimes *in absentid*, and for a mere pecuniary consideration. To stop these abuses the following Bill is proposed:—

"ARTICLE 1.—Article 4 of the law of the 19th Ventose, anno 11, relative to the practice of medicine, is modified as follows: The Minister of Public Instruction may accord foreign graduates of foreign universities, on presentation of their diplomas, dispensation from attending the course of studies. A foreigner can only be authorised to practise medicine or surgery in the territory of the Republic after having passed the test examinations prescribed by French law.

"ARTICLE 2.—No one in the practice of the medical profession can adopt the title of doctor if he has not obtained that title before a French Faculty. The unauthorised assumption of the title of doctor is punished by a fine of from 50f. to 1000f., and by imprisonment of from six days to six months. Article 463 of the Penal Code is applicable in such cases."

We are not prepared to deny the reasonableness of some of the complaints of the promoters of this Bill in France. Many of them are well-founded, and would justify the exercise of severe discrimination in the recognition of foreign degrees. But it is monstrous for a Republic, in this advanced part of the nineteenth century, to refuse to recognise good diplomas which entitle their possessors to practise in the country in which they are granted. It would be specially unreasonable to deny to these persons the right to practise amongst their own countrypeople resident in France in places of refuge and resort during winter. France cannot, for example, be supposed to be more anxious for the efficiency of medical attendants on English invalids than England herself. To refuse an English invalid the attendance of a medical man of his own nation until he had taken a French degree would be cruelty not less refined for being legalised. In England we have actually no State examination to pass; but it will not be denied by intelligent French practitioners that English medical examinations, though capable of and requiring much modification, supply practitioners who will sustain a creditable comparison with the practitioners of any other country. In conclusion, while admitting that the statement of reasons for the French Bill raises questions of urgent interest, we earnestly trust they will be referred, as the Minister of Public Instruction is understood to wish, to an international commission, and not settled by a retrograde and illiberal Bill.

WHEN the dull winter months have fairly set in, consulting physicians are visited in great numbers by all varieties of pulmonary cripples, who, with the rain, mud, and fog of London staring them in the face, come to ask, What shall we do? and where shall we go? Their diagnoses and their prognoses have probably been pronounced months, perhaps years ago; but though "consumption," whether tubercular, fibroid, or pneumonic, has taken possession of them, and will, sooner or later, definitely determine their existence, the members of that middle class now in our minds are sufficiently well off to take care of themselves, and to prolong their lives by the right use of correct climatic prescriptions. It is to the quality of these prescriptions that we desire to draw attention, for, as it appears to us, they are in the present day far too little studied, and their results far too little appreciated, by our own profession. There are of course, as we know by their writings and practical researches, some physicians who have specialised climate as an agent in preventing or arresting pulmonary diseases. English physicians who either live abroad, or now winter there systematically, have given much valuable information about climate, but many of their compeers in London and the provinces have yet to learn, or at all events to classify, climatic specialties as they affect diseases of the chest. All probably know how to prescribe properly a dry air for one form, a moist air for another, a high elevation for a third variety of phthisis, and so on. But has the subject of climate been studied sufficiently to make it clear where all these varieties may severally be found, and at what seasons of the year? When a client comes with his chronic cough and his indubitably phthisical history, the diagnosis, the variety, and the particular stage of the disease are doubtless accurately ascertained, and the patient is told that he must get to, say, a clear and bracing atmosphere. He asks as to the exact geography of such a place, conceiving this information to be—as indeed it really is—a part of the prescription. It is, in fact, the most important part of the prescription, in comparison with which, in the great majority of these cases, all drugs are trivial matters. But at this point of the interview the consultee is frequently at fault. This occurs because, as regards the majority, the opportunities for practical experience have been small. All medical men have, as students, had abundant opportunities of acquiring an intimate practical knowledge of what they prescribe, as well as of the effects produced. But it is not so as regards climate. Comparatively few men have a chance of being classed as cosmopolites before they commence practice, and so climatology is known at best in theory only. All are acquainted very generally with the atmospheric virtues of St. Moritz, Algiers, Arcachon, Biarritz, Bloemfontein, Nice, Mentone, and Manitoba, and some score of other places more or less convenient of access. But how little is known (we mean familiarly) of the exact climatic particulars of these places, including those parts of the year when they are not specially healthy, the conditions of travelling, and the like. It is the plan, for instance, to recommend certain places in South Africa as eminently suited to pulmonary cases, and an offhand opinion is given, "Go to Bloemfontein." Neither doctor nor patient is probably aware that this place is upwards of a fortnight's journey from Cape Town, that the

roads are villainously bad, and so, unless the latter be a wealthy man, and his lungs not very much damaged, the remedy will be almost worse than the disease. But, on the other hand, no one seems to know anything of Wynberg, about twelve miles out of Cape Town, accessible in twenty-one days from England, where pine woods on one side, tall mountains and surrounding hills in front, and the sea behind, enclose a tract of country specially suited for pulmonary cripples, except during about two months of the year. This is but one example, for good food, fair cooking, and cleanliness are also often absent in places highly commended, and otherwise commendable; and some general knowledge of all these points ought to be acquired, for these are indeed as ingredients in the prescription. The materials for the acquisition of this knowledge are, of course, to some extent, ready at hand in our scientific and general libraries. But they have not as yet been exhaustively collected and systematised, or, if so, have not been mastered, even by the leaders of the profession, half as well as the physiology of food and the British Pharmacopœia. And, as a practical consequence, patients and physicians both suffer, the former in health and pocket, the latter in reputation.

WE print on another page the questions in Human Anatomy recently set, together with questions on other subjects, in the examination for the Natural Sciences Tripos at Cambridge. This is the first occasion on which Human Anatomy has been given a special place in a science examination at Cambridge, or, we believe, at any other place. The wisdom of doing this has, we are aware, been doubted, and it was conceded at Cambridge only after much consideration and discussion. Of the result, however, we have no doubt, provided the energies of the place are well directed to carry out its own purposes. Human anatomy has, and of late more and more, been regarded too much as simply a collocation of facts, and, therefore, has been increasingly relegated to the region of dulness. It has grown in accuracy, but decreased in interest. The recent handbooks and dissector's manuals tell this, and so, unfortunately, do the larger works on anatomy. Excellent as they are in many respects, they fail in the important requisites of imparting ideas and of associating thought with facts. Hence this great branch of study, which is really the basis of medical knowledge, is in danger of falling out of the category of scientific subjects. It was, therefore, with unmixed satisfaction and with good hope that we learned, a year ago, that Cambridge had come to the rescue, and had determined to assign it a definite place in the subjects for the Natural Sciences Tripos, and so to give it rank among the educational subjects of the University. Granted that, as too commonly taught—and in this the teaching followed, of course, upon the examinations—it was becoming regarded as a special subject, deserving only the attention of a special and limited set of men, who are learning it for special medical purposes, and that beyond its application to those few it might seem of little value. Yet this was assuredly much to be lamented. Cambridge happily has risen to a consciousness of the evil of this, and perceives that anatomy deserves a better fate, and should be admitted to a wider sphere of usefulness. It sees that, taken as it ought to be, and as the questions to which we have referred indicate that it is to be taken—that is, in connexion with mechanism and functional adaptation, with development and comparison with lower animals,—the study of human anatomy tends not only to promote accuracy of observation and to discipline memory, but serves also to cultivate the faculties of comparison, causation, and philosophical reflection, and is, therefore, capable of being a medium of high education no less than the other subjects of university study. By appreciating and acting upon this, Cambridge is taking precisely the part which it ought to take in relation to medical education. We have no need of the Universities simply to teach anatomy, though we have no objection to their doing so. But by maintaining and raising the scientific character of anatomy by making it a medium for promoting the higher education of medical students, they will be conferring a great boon upon our profession. Further, by showing that it is a subject in which the non-medical mind may take interest, and from which it may derive the highest improvement, they will be conferring a general benefit on the community, and will be assisting to dispel that ignorance with regard to medical study upon which quackery and imposture are at present so immovably seated. A difficulty in carrying out the good intentions of the University may be met with in the paucity of books treating upon the subject from the standpoint which is desired. The works of the WEBERS and MEYER have not been translated into English. GEGENBAUR, the eminent professor of Human Anatomy at Heidelberg, we understand, is preparing a treatise which will be, to some extent, of the nature required, and, if so, we may hope to see a translation soon after its publication. That it will be taught at Cambridge in the manner needed we may assume, and we will hope that the stimulus to a higher study of human anatomy thus given will ere long show itself in the enrichment of our anatomical literature in the same direction, and will give an impulse to the science of human anatomy in this and other countries.

EVIDENCE has been accumulating for some time past tending to show that intimate relations exist between the liver and the production of urea in the system. By MEISSNER it was remarked long ago that urea was contained in considerable quantity in various glands, but especially in the liver; and PRÉVOST and DUMAS pointed out that the amount contained in the liver was increased after extirpation of the kidneys. BUDGE demonstrated that the disintegration of the albuminoids is very active in this gland; and CYON that if blood be transmitted through the vessels of the liver the proportion of urea contained in it is augmented; and the general opinion of physiologists is in accord with the view originally taken by BOWMAN, that the urea is not formed at or by the kidneys, but that these organs serve only as filters, by which it is removed from the blood as fast as it is formed. A remarkably interesting memoir has just been published in the *Archives de Physiologie*, in which M. BROUARDEL adduces many striking pathological facts in favour of the view that urea is formed, in part at least, if not wholly, in and by the liver. The conclusions at which he has arrived, given in a somewhat abbreviated form, are that in severe cases of icterus, the proportion of urea in the

urine diminishes, or altogether disappears; that in the form of icterus produced by phosphorus poisoning, whether accidental in man, or the result of direct experiment on animals, the amount of urea undergoes considerable diminution; although in simple jaundice the quantity of urea eliminated does not diminish, and if present in large quantity the circumstance may even be regarded as affording grounds for a favourable prognosis.

In suppurative hepatitis, the amount of urea, as was shown by PARKES, augments in the earlier periods of the disease, but it diminishes when the abscess has destroyed a large portion of the liver, though there may be a considerable degree of coincident fever. In biliary lithiasis leading to obliteration of the ductus communis choledochus and atrophy of the hepatic lobules, the urea diminishes in quantity. The diminution appears to be most notable during the crisis of hepatic colic, and the same thing is observed, according to REGNARD, in intermittent hepatic fever. In cirrhosis, whether of the atrophic or of the hypertrophic form, the quantity of urea eliminated is extremely small, even when the patient continues to eat well. In diseases of the heart, the development of cardiac liver causes considerable diminution of the excretion of urea. The variations consequent on repose and appropriate treatment may serve to establish the prognosis. In cases of fatty degeneration of the liver occurring in phthisical patients and in those affected with suppuration in the bones, the proportion of urea falls to a very low point. As a general rule, it may be stated that in cases of chronic disease of the liver, such as cancer or cystic disease, the destruction of a large portion of the substance of the organ is attended by a fall in the proportion of urea. On the other hand, cases of congestion of the liver are indicated and characterised by an augmentation in the elimination of urea; and so also in transient glycosuria the urea rises when the sugar is present, or just at the period of its disappearance; whilst in diabetes the amount of urea exceeds in some instances the quantity present in any other disease. Lastly, in lead colic the liver contracts and the urea is diminished, but when the colic has passed off, the liver resumes its normal size, and the amount of urea becomes normal.

From all this M. BROUARDEL believes that it may be regarded as demonstrated that in diseases of the liver the quantity of urea secreted and eliminated in the course of twenty-four hours is dependent on two principal conditions—first, the state of integrity or of alteration of the hepatic cells, and, secondly, the greater or less activity of the hepatic circulation. It follows, he observes with reason, that the variations in the quantity of urea eliminated by the kidneys, providing these are healthy, may be employed at the bedside to establish the diagnosis and prognosis of lesions of the liver.

THERE appears to be a desire on the part of some members of the Council of the Pharmaceutical Society to effect an amendment of the Pharmacy Act of 1868. At a meeting of the Council, held on the 3rd January, a resolution was adopted, providing for the appointment of a committee to consider the terms of the Act with a view to preparing or suggesting any alterations which it may deem expedient, and to report thereon.

Annotations.

"Ne quid nimis."

THE FLOODS AND THEIR AFTER-EFFECTS.

THE immediate effects of land submersion must be calamitous, as multitudes of poor residents in districts inundated by the recent excessive rainfall are unhappily experiencing; but the after-effects are only too likely to prove more disastrous. The crops will suffer severely, seed being either washed out of the earth or so sodden as to undergo a process of premature and abortive fructification, which ends in rot. The damp ground must take long drying, and will give rise to an excessive visitation of "colds," and "rheumatism" during the two most trying months of the year. Nor is this all: mixed earth, saturated with rain-water and left to dry, will be a nidus of decomposition in which decaying animal and vegetable substances give off mephitic vapours, relatively as pernicious to persons breathing the polluted atmosphere, as air contaminated with sewer-gas, and likely to produce consequences scarcely less terrible in localities strewn with offal of any kind, while having a dense subsoil or being improperly drained. Districts in which the worst consequences will probably ensue unfortunately abound in the neighbourhood of large cities, and especially around the metropolis. It seems strange that, looking at the immediate results from an economical point of view, the wisdom of providing low-lying districts with capacious drains, and effectually banking the river Thames and principal watercourses, has not commended itself to the judgment of sanitary authorities. The considerations we have urged should, however, be allowed to have additional weight. Londoners will remember how, in the old days, before the "main-drainage" system was established, the Fleet Sewer filled with "storm waters"—we use the almost forgotten term—in twenty minutes, and if a heavy downfall continued beyond that period, regurgitation happened in all the house-drains. Memory recalls the abominable stench "the drains again" produced whenever it rained. Happily, it seldom, almost never, did rain in the days of small brick soil-tubes as it rains now, and, from some mysterious cause, the ravages of fever were comparatively unknown, or perhaps we ought to say unrecognised. Dr. B.W. Richardson is right in describing the stairs of ordinary dwelling-houses as a collecting apparatus for sewer-gas, which, being accumulated in the dome and upper floors, families have the pleasure of breathing during a third, and not the least important, part of their lives. There is probably no reason to apprehend that the enormous rainfall to which we have just been subjected will reproduce in London the evils of regurgitation, bringing the soil back into the house-drains, but the drainage of many outlying districts must be seriously affected, and the surface perils are very great. Sanitary authorities, such as local boards of health and vestries, should have their attention immediately directed to the matter. The poor must not only be relieved, but protected from the dangers of disease following the subsidence of the floods, putrefying processes, and the rise of morbific emanations from the drying earth. After the necessary measures of relief are taken, the prevention of secondary evils will call for active effort. When this formidable task is completed, perhaps it may occur to those in authority, as being worth while, to avert the repetition of all this trouble and peril by obvious engineering and sanitary precautions.

POOR-LAW MEDICAL OFFICERS AND THEIR DEPUTIES.

AN inquiry of considerable interest to Poor-law medical officers was commenced at Minster on Dec. 29th by Mr. Wodehouse, Inspector of the Local Government Board, assisted by Dr. Moir as medical assessor. The inquiry arose out of complaints preferred by the relieving officer against Mr. Hicks, the medical officer, as a counter-charge to one that gentleman had preferred against him, to the effect that Mr. Hicks had practically delegated a large portion of his duties to his partner and deputy, Mr. Curling. This, Mr. Wodehouse remarked, was contrary to the instructions of the Consolidated Orders, which state that the duties of the medical officer should be discharged personally, and that he is not at liberty to delegate them to a substitute, except in very special and particular cases. Mr. Hicks admitted that he had so delegated his duties to his partner, Mr. Curling, but he stated that he was not aware that the orders of the Local Government Board were so stringent. We think the majority of the profession are as ignorant as Mr. Hicks in respect to the stringency of the regulations, and few Poor-law officers are aware that they are liable to censure if they allow their partners, or qualified assistants, although sanctioned by the Poor-law Board, to act as their deputies to assist the union patients. If medical officers were not permitted to employ their deputies except under special and particular circumstances great practical inconvenience would result, and we would ask Mr. Wodehouse in how many unions throughout the kingdom are not the entire medical duties performed by the deputy, who is, in most cases, the junior partner or qualified assistant. Of course, if the Local Government Board intend to enforce this order, it would be easy to transfer the appointment for the time to the junior partner or assistant. But such a course, we think, would be disadvantageous to the poor. The custom generally adopted is for the union appointment to be held by the senior partner, who is responsible for the proper performance of its duties, whilst the junior partner or assistant does the work. The poor benefit by this arrangement, for they have the advantage on the one hand of the services of a young and energetic man, whilst in serious cases they have the benefit of the advice and experience of the older practitioner. If the appointment were held by the junior partner, or qualified assistant, the Board could not expect the senior to act as deputy to the younger man. The custom hitherto adopted, even if not strictly legal, has worked well, and it will be an evil day for the poor if the Local Government Board, by enforcing strictly the exact letter of the law, compels senior practitioners to transfer their responsibilities as well as their duties to their juniors. Other questions of considerable interest have arisen in connexion with this charge, an inquiry into which is still being pursued. As soon as the evidence on these questions shall have been completed, we hope to pass the whole matter in review.

LOW TEMPERATURE AND CAUSES OF SCURVY.

WE have lately received an engineer corps paper, which contains an interesting narrative of the North American Boundary Expedition, compiled by Captain Featherstonhaugh, R.E. This expedition was occupied between 1872 and 1876 in marking the boundary between the British possessions and those of the United States, and, according to the particulars before us, the parties, officers and men, engaged were subjected to cold nearly as intense as that experienced during the last Arctic Expedition. On one occasion (23rd December, 1872) the thermometer registered 51° F. below zero, when "it became difficult to take the most simple observations of stars for azimuth with the proper precision, owing to the freezing of the lubricating oil in the internal parts of the instruments, and of the oil in the lamps illuminating the field of view." On several occasions from 20° to 30° below zero was recorded. On turning to the ration list it appears that, among other articles, there was a daily allowance of dried apples and pickles and dried beans. No mention is made of lime- or lemon-juice on the ration-list, but we are informed on good authority that a liberal allowance of lime-juice formed part of the rations throughout the operations, that the 3 oz. daily ration of sugar was calculated for use with the lime-juice as well as with the tea, and that the juice was always much appreciated by the men. The parties employed in marking the boundary north of Maine, near the Atlantic, suffered much from scurvy, but in the narrative before us of the expedition of 1872-6 no mention is made of any outbreak of the disease. It would be well, by way of defining, as exhaustively as possible, the connexion between intense cold and the production of scurvy, to appeal to the experience of Canadians, than whom no other civilised people can give such valuable information. Until some very positive proofs are forthcoming, we shall still continue to maintain that low temperatures may be a predisposing, but are certainly not an exciting, cause of scurvy. The disease has flourished in all temperatures, and, as far as our own merchant navy is concerned, has been most conspicuous in vessels trading to and from India and China, and that have been becalmed in excessively fine and hot weather about the Line. Cold, sledge-work, darkness, and other causes have been raised as dust to throw into the eyes of the public, in order to blind them to the real causes of the outbreak in the recent Arctic Expedition. If a Royal Commission is really about to sit and inquire into the subject, evidence from Canada may most usefully be taken, as well as that of the captains and surgeons of large whalers belonging to Hull, Dundee, and Aberdeen. Mr. George Busk, for many years surgeon to the *Dreadnought*, has probably seen more cases of scurvy among sailors from different quarters of the globe than any man living. There are many skilled living witnesses as to the severity of the disease both in the Crimea and during the siege of Paris; and we shall be very much mistaken if, after all possible evidence has been forthcoming, it is not still found that want of vegetable diet, or bad animal food, or the two combined, were not in this, as in former instances all over the world, the exciting causes of this lamentable disaster.

THE WORK OF THE MEDICAL DEFENCE ASSOCIATIONS.

THE vindication of medical law, owing to the supineness of the General Medical Council and of the medical corporations, falls on the profession. It is right to consider the cost and trouble which this work involves. A few facts will help our readers to an estimate of the obligation of the profession to associations which have revived respect for medical laws. The East London Medical Defence Association has conducted seven prosecutions under the Apothecaries Act, and is now, we believe, engaged in another. The taxed costs in one case were £62; in another £45. In the other cases the costs were much lower, perhaps about £7. Under the Medical Act, including two appeals now pending, there have been nine prosecutions, the cost ranging from about £15 to about £6. In a recent appeal case the honorary secretary, Mr. R. H. S. Carpenter, was compelled by Mr. Knox to enter into recognisances to the amount of £60 to proceed with the case. There has been one prosecution under the Births and Deaths Act, and preparations are being made for one or two

more, to say nothing of other intended prosecutions under the Medical Act. The amount of time and labour implied in all this may be imagined, but can only be known to one person—the honorary secretary. In Hamilton's case, for example, there were four adjournments, two attendances were required with reference to the appeal, and much other time besides was consumed. The solicitors deserve great praise for their hearty and intelligent work.

The Central Association has instituted four prosecutions, two under the Medical Act and two under the Apothecaries Act. It will probably take a large share in "Dr." Hamilton's appeal case. To Mr. Brown's energy and intelligence as the secretary, and to Dr. Richardson's hearty help and counsel from the beginning, the whole movement owes its character of efficiency. The profession should reward such admirable services by supporting these Associations.

THE HYGIENE OF PUBLIC ELEMENTARY SCHOOLS.

A PAPER of very considerable interest on the regulations of the public elementary schools, in reference to sanitary progress, was read before the meeting of the Society of Medical Officers of Health, on December 15th, by Dr. Thursfield, the medical officer of health for the Shropshire combination of sanitary districts. The paper showed a condition of things largely prevailing in public elementary schools in regard to sanitary matters highly discreditable to the Educational Department of the Privy Council, and which furnishes another illustration of that tendency of administrative bodies, whether central or local, to deal with sanitary questions as matters not demanding skilled intelligence. He showed, first, how the regulations under which the schools are worked might have been largely devised with the special object of fostering infectious diseases, and this without any real necessity in view of education. He showed, also, how the regulations with regard to the construction and arrangements of school buildings were insufficient, failing equally, on the one hand, necessarily to secure a wholesome building, or on the other, if by chance such a building should be obtained, to maintain it in a wholesome condition. And of the school-house it would appear that the regulations formed no certain obstacle to its being built so as from the first to be unfit for human habitation. He observed that the practical ignoring of sanitary considerations in our school legislation has probably led to little importance being attached to them by school officials generally, and he gave several startling illustrations in support of this position. The scope of Dr. Thursfield's remarks, especially as to infectious sickness in relation to schools, will be most clearly shown by the remedies he proposes. These are as follows:—All schoolmasters in public elementary schools should be paid by salary. Absence from school on account of illness should be allowed to count for average attendance for the purposes of the grant, whether the school be dissolved or not. School examiners should be allowed to relax the standards of examination when a school has been closed for any time on account of prevalent diseases. It should be a statutory offence, which it is not at present, to knowingly send a child to school from a house in which there is any one of a certain number of dangerous infectious diseases. The absence-register kept by the teacher should state, in addition to the word "sickness," the assigned nature of the complaint; this would check to a certain extent false or indefinite information. It should be the definite duty of the School Board officer to prevent children coming to school who might be liable to bring infection with them. Absence on account of sickness in the family should be held to be a reasonable excuse, as well as personal sickness, and the most stringent rules should be enforced as to evidence of the disinfection, by heat or boiling water, of the clothes of convalescents before returning to school. A School Board should have the power of introducing sanitary clauses into its bye-laws. Dr Thursfield terminated his paper with a series of suggestions as to the structural arrangements of school-buildings. The Society of Medical Officers of Health have determined to send a copy of this paper to the Vice-President of the Privy Council. For the information of those who are interested in the subject, we may state that it is about to be published in a separate form.

EXCISION OF THE UTERUS.

THE excision of the whole uterus is not a novel operation in the annals of surgery. The rarity, however, with which it has been performed, and the still greater rarity with which it has been successful, invest with much interest the details of a case communicated by Dr. Hennig, of Leipsig, to the forty-ninth Naturforscher-versammlung, recently held at Hamburg. As the patient had survived the operation eight months, and the original disease, being cancer, presented no evidence of recurrence, the operation is one of remarkable success, although the conditions were in some respects unusually favourable.

In the performance of the operation the uterus was first separated from its connexions with the anterior wall of the vagina by a knife and scissors; next it was separated by the fingers from the anterior fold of the peritoneum; and then, since the vessels in the broad ligament bled but little, the fundus of the uterus was drawn forwards, first with two fingers and afterwards with a hook, so that its connexions with the posterior wall of the vagina were divided without difficulty. The growth had invaded the posterior vaginal wall, and one tubercle involved the wall of the rectum, and in its removal a small opening was made in the rectum. The total length of the uterus was five and a half inches, and the carcinoma had invaded the whole cervix. It was found that the left ovary and Fallopian tube, adherent to the uterus, had been removed with it, and about one-half of the right Fallopian tube. Thus the uterus had not been separated from the peritoneum as intended, but the tissue which was attached to the base of the uterus showed that old peritoneal exudations had filled up and enclosed the pelvic portion of the peritoneal cavity, in consequence no doubt of perimetritis. The opening in the rectum was closed with the needle, and a piece of ice put into the wound; there was little subsequent hæmorrhage, and the wound was cleansed afterwards by injections of salicylic acid twice a day. Considerable peritonitis followed, the temperature of 105° being reached on the fifth day after the operation, but it gradually subsided. The recto-vaginal fistula was closed by an operation four weeks after the excision of the uterus, and with the exception of a small superficial abscess, from some enlarged glands, the patient's progress was most satisfactory. Four months later a small soft growth appeared in the neighbourhood of the fistula, and was removed without difficulty, the fistula having become almost closed; and up to the date of the communication no further symptoms of recurrence had manifested themselves, and the patient's health continued good.

The prolapsed uterus has, of course, been many times removed by the knife or ligature, but in most cases with a fatal result. Dr. Hennig has collected twenty-one cases in which the unprolapsed uterus has been removed. Andreas a Cruce removed a "scirrhous" uterus per vaginam in 1560, and a similar operation was performed at the end of the eighteenth century by Wrisberg and by Monteggia. In 1828 Blundell removed the uterus *in situ*, and the patient lived for a year, dying ultimately of a recurrence of the

cancer for which the original operation was undertaken. The method of excision by separation from the peritoneum was first proposed and performed with success by Langenbeck. His patient survived the operation for twenty-six years, but it was found that the uterus was not cancerous, as had been supposed. It is clear from the details of these cases that a pathway is opened to the experimental surgeon, which is not without promise of reward for cautious pursuit.

TORQUAY AND ITS DEATH-RATE.

THE Local Board of Torquay is much concerned regarding the death-rate as ascertained by the medical officer of health. The total mortality for the year ending Midsummer, 1876, was—of residents 411, of visitors 71; and the local authorities at first seemed rather afraid to publish the report which has been handed in by Dr. Rhind, but they have now determined to do so after separating these two factors. We think it a matter of great importance that the mortality of visitors should be distinguished from that of the inhabitants; but it is essential for even an approximation to an accurate knowledge of the death-rate of a given place that the diseases of which visitors die should be also stated, for otherwise many deaths which may be due to endemic causes will not be correctly returned. That the deaths in the different registration districts which adjoin a fashionable watering-place should also be differentiated is an obvious necessity; but the local board need not quibble over whether four deaths belong to St. Marychurch or to Torquay, when to a stranger there can be but little difference between the two districts, inasmuch as both form parts of the same seaside resort. We cannot help thinking that a mortality of nearly 18 per 1000 for the past quarter is rather large for a place so favourably situated as Torquay, especially when we consider the exceptional mildness of the weather. If due care and fairness be exhibited in separating the mortality which is sure to accrue from an influx of invalid non-residents from that which is due to the inhabitants and local causes, their publication in distinct tables is a great advantage, and we would recommend this procedure to medical officers of health at seaside and fashionable resorts generally. We regret to see that some members of the board are inclined to throw doubts on the accuracy of the report of its medical officer, rather than to consider the best means of rendering it more satisfactory in the future.

SKILLED NURSING.

THE world has recently seen too great reason to fear that "skilled" nurses, even those engaged at hospitals, are not to be trusted with the administration of duly labeled medicines. If to the contingencies apparently inseparable from feminine folly or feebleness, are to be added such dangers as may accrue to the practice of leaving the drugs in a dispensary at the discretion of hospital servants, we venture to think that the outlook is dismal indeed. It is bad enough to have hospital patients dosed to death with the wrong medicine, or, perhaps, a disinfectant in place of a tonic, but the perils of a private practice conducted by nurses, even among their own order, on the servants immediately below and around them, are too fearful to contemplate with equanimity. We have always felt some misgiving as to the possible effect of training nurses up to a point at which they may be useful to physicians and servants without going beyond the limits of safety. It is doubtless difficult for a young woman, of no great mental calibre and few attainments, to feel herself credited with quasi-medical powers, without becoming possessed of an ambition to use them. The simple domestic, of course, looks up to the "trained nurse" as half a doctor, and this flattering appreciation is likely enough to be rewarded by a "dose" in time of need. Such a state of matters will not long continue before the simple domestic emulates the official she shrewdly suspects to be, after all, little better qualified than herself. We do not admit that the "skilled nurse" must "certainly and necessarily have access" to a medical cupboard. On the contrary, we assert that under no circumstances should an attendant on the sick be placed within reach of drugs other than those she is required to administer. Permissory directions are always fraught with peril. If the skilled nurse has command of drugs, and the servants can obtain access to the same agents of mischief, the imbroglio is complete. The only safeground against this new peril is to give hospital sisters and nurses—call them what we may—distinctly to understand that they are personal attendants on the sick, nothing more, and to lock away beyond their reach every particle of medicine, whether poisonous or not, as jealously as the same agents would have been guarded from the inroads of the Gamp sisterhood in less enlightened, though, perhaps, not less intelligent, days. The practice of placing house-mixtures and even opiates at the disposal of these women, who, for the most part, possess just enough knowledge to make them dangerous, is a trouble-saving but short-sighted expedient, against which physicians and surgeons should set their faces strongly, before worse happens than has yet transpired.

THE VACCINE LYMPH FAMINE.

CONSIDERING the risk which every unrevaccinated person, above the age of childhood, runs, and the growing intelligence with which revaccination is demanded, it is lamentable to notice the inadequacy of the supply of vaccine lymph. By the existing law, public vaccinators have a great monopoly of vaccinations amongst the working classes. To do many public vaccinators justice, they are very efficient in respect of having a good supply of lymph and freely giving it to practitioners in their neighbourhood. Others are very dry and ungenerous. We have even heard of some who are turning their supplies of lymph, gained in public vaccination and at public vaccination stations, to commercial purposes, and selling them at more for a tube than they would ask for a bottle of medicine. We protest against this, and think it a matter for the grave consideration of the Local Government Board. The supply granted by the Vaccination Department of this Board is altogether inadequate, and neither it nor public vaccination will be improved by the sale of tubes by public vaccinators. It would be well to make a great point of the lymph supplied by a public vaccinator in estimating his merit. If some better supply to meet the demand for vaccine lymph is not forthcoming, the present system of public vaccination will be seriously disparaged. And, meantime, life in the metropolis is being seriously endangered. Revaccination of adults is now perceived to be only second in importance to the vaccination of children, and the means of performing it are scarcely forthcoming.

THE PRESIDENCY OF THE ODONTOLOGICAL SOCIETY.

WE congratulate the Odontological Society on having elected Mr. Cartwright as its next President, and trust that, should that gentleman accept the office, he will be able to effect some reforms in this heterogeneously composed society. As long as it refuses, despite repeated suggestions, to insist upon the possession of some qualification as a *sine qua non* for admittance to its ranks, it can lay no claim to professional status as a society, whilst any attempt in the event of a change in its rules, to do as has lately been mooted—viz., to refuse admission to qualified surgeons who possess

a major and general diploma in lieu of a minor and special certificate—would be a policy utterly suicidal. The position now accorded to dental surgery is owing to the fact that many surgeons now practise it as a specialty, and to attempt to exclude such men because they have not thought fit to avail themselves of a licence which was generously granted by the College of Surgeons to those who through circumstances could not take the higher and inclusive diploma, would be an insult to it, and to the surgical profession.

THE BARRACKS OF THE TOWER HAMLETS MILITIA.

THE proceedings taken by the Sanitary Authority of Bethnal-green against the "owner" of the Militia Barracks, Globe-road, have come to a somewhat abrupt termination. The summons was taken out in respect of three buildings—the general barracks with officers' quarters, adjutant's house, and hospital, which were certified by the medical officer of health to be in such a state as to render them a nuisance and injurious to health. It was stated that, owing to structural defects, the rooms readily admitted sewer gas, and that there had been several cases of fever among the men of the regiment, the Tower Hamlets Militia. On the case coming on for hearing at the Worship-street Police-court, it was shown that the premises were Government property, and that the Crown was not bound by the provisions of an Act of Parliament unless such were expressly named therein. The agents of the Crown, however, did not stand upon technical rights, and the military officer in charge of the district, Captain M'Carthy, gave a personal assurance that the works necessary to bring the barracks up to an efficient sanitary condition were in progress, and the summons was dismissed. We are strongly of opinion that the best course for the War Office to pursue would be to abandon these buildings forthwith. A more ineligible site or locality for the purpose to which they have been put would be difficult to find in the East-end of London.

PANICS AND PERILS.

A PANIC may occur or be created without the justification of a peril, and it may produce the evil it madly dreads This is especially likely to be the case with panics of disease, such as hydrophobia, in which the nervous system plays a prominent part. It therefore becomes necessary to ask whether hydrophobia is really as prevalent as would appear from the reports promulgated almost daily by the newspapers? If the paragraphs that alarm the public are true, a great portion of Wales and large districts of England must be the scenes of a devastating plague, a prey to "mad dogs." Is this the fact? We doubt it, and it is clearly incumbent upon the local authorities of places so infested to take *medical* measures for ascertaining the truth, and either confirm or deny current rumours. It must be abundantly evident that the circulation of reports calculated to make anyone who happens to have been bitten by a dog, of any kind, uneasy, cannot fail to produce a crop of purely imaginary complaints.

HEALTH OF FINCHLEY.

THE inhabitants of Finchley are about to memorialise the Local Government Board, asking for an inquiry into the present sanitary condition of the district. The memorialists complain that Finchley is utterly and absolutely without any proper or efficient drainage or sewerage provision, that it has a very bad and insufficient water-supply, and is wholly without lamps, even in the principal thoroughfares. The petitioners make out a good case, and we have little doubt that the desired inquiry will be ordered by the Central Authority. In a late number of a newspaper with a local circulation, which has been forwarded to us, we find that Dr. Saunders, the medical officer of health, has presented a report to the Barnet sanitary authority, in which he specifies the various nuisances which arise in the parishes of Finchley and Friern Barnet through the overflow of sewage from cesspools, and the consequent pollution of the tributaries of the River Brent, and alleging that last year there was an epidemic of malignant sore-throat in a portion of Finchley, which he and the local medical men had no difficulty in tracing to defective sanitary arrangements. A resident also writes to say that he is frequently without water for days, that no scavengers or dust-carts ever visit a house, and that water-carts for the road are not known. It appears that Finchley has no local board. A cursory view of the situation leads us to think that until such a body is established, no adequate steps towards a satisfactory adjustment of their difficulties can be made by the ratepayers.

THE ARCTIC INQUIRY.

IT is satisfactory to find the committee appointed to investigate the occurrence of scurvy in the Arctic Expedition crew includes two medical men. It was obviously impossible that the Medical Director-General should himself be a member of the committee, as he is officially a party to the cause. One of the preliminary questions will of course be—what instructions were issued to the officers personally entrusted with the safe conduct of the expedition? After this has been answered the inquiry must take the form of an endeavour to determine—how far these directions, whatever their nature, were carried out? It is apparent on the face of the facts that the Director-General cannot sit as judge in the matter. It is strange that anyone with a general knowledge of the situation should have supposed he could. No harm is likely to ensue from the circumstance that a layman occupies the chair if the medical opinion represented on the committee has due weight. Everything will depend upon the manner in which the inquiry is conducted, and whether the truth is sought out, as public interests require it should be, in spite of all obstacles and regardless of personal consequences.

MARRIED WITHOUT LEAVE.

AN inquest was lately held at Woolwich, before Mr. Carttar, upon the body of the child of a soldier that had died under circumstances which have been fully detailed in the daily journals. The circumstances were shortly these: The child was the daughter of a driver in the Royal Artillery, married without leave. The father was alleged to be a regimental servant to an officer, and absent at the time from the garrison. The mother applied to the surgeon on duty at the Military Hospital to attend her sick child, and was told that she must apply to the medical officer for the parish, which she apparently did, but the child died in her absence. The regulations of the War Office are very clear and unmistakable—viz., that the wives and families of soldiers married without leave are not to be supplied with any drugs or appliances from the public stores, and there was, therefore, no other course left but to refer the woman to the medical officer who could afford the requisite aid — namely, the medical officer of the parish. It is well known that military surgeons have very frequently attended cases of sickness among these classes, prescribing for them and relieving them at their own expense; but it is clear that they could not be expected to do this in the case "of ten or twelve wives and children of soldiers every day," as stated in the evidence. There was, of course, nothing to show that the medical officer—or, indeed, that the mother

herself—was aware of the dangerous state of the child, and it is, humanly speaking, certain that no medical aid would have been of any avail in the case. It is, in our opinion, very unjust to seek, as we perceive was done in one journal, to impute blame to the army medical officer, whose course was simply guided by the War Office instructions. It is impossible to avoid commiserating the mother under the circumstances, but the soldier who marries without leave must, in reality, be held responsible for the misery that so often ensues. The Government does all it can, we presume, to discourage marriage in the army, and it certainly is not the least of the benefits that may attend a short-service system that a soldier may be fairly prohibited for seven or ten years from marrying whilst serving.

ACUTE TONSILLITIS DEPENDENT ON ATMOSPHERIC FUNGI.

STAFF-SURGEON HENRY F. NORBURY, R.N., of H.M.S. *Juno*, has contributed a paper on this subject to the last official Report on the Health of the Navy. Having frequently examined microscopically the air of the ship when she was in and on the other side of the Suez Canal, Mr. Norbury observed the presence of very numerous globose spores of fungi. These spores corresponded exactly with many found on yellowish-white elevations that appeared on the tonsils of twelve men suffering at the time from all ordinary symptoms of acute tonsillitis. These globose spores were of well-defined contour, varying in size from 1-1200th to 1-2000th of an inch in diameter, some of the larger possessing a yellowish tint. The filaments, whether of the fructification or mycelium, were simple, cylindrical, extremely slender, and colourless. The patients in question slept in different parts of the ship, and had no particular communication with each other on duty or otherwise, and hence it is remarked that they could not have contracted the disease from each other. The writer makes the following suggestions: "Whether the spores, having previously alighted on the food, came into contact with the tonsils during deglutition I am unable to state; but as, after a hard day's work in the tropics, men usually sleep heavily, and often with their mouths wide open, the affection was probably caused by prolonged inhalation of the spores, which found a suitable soil on the moistest part of the oral cavity, the tissue of which was perhaps also relaxed by smoking, or otherwise temporarily impaired. No similar case of tonsillitis was seen prior to the appearance of the spores in the air."

PORTABLE URINE TESTS.

THE examination of urine at the bedside at private houses is generally a matter of difficulty, for although much ingenuity has been shown in making portable the numerous instruments now required by the physician for physical diagnosis, no very handy or satisfactory "urine case" has been devised. In a letter which appeared in our columns a short time since, Mr. Kesteven showed how readily albumen when present could be demonstrated by heating a drop of urine on an ordinary glass microscope slide over the naked flame of a candle, the smoked under surface serving to show up the slightest cloudiness to great advantage. Mr. Kesteven, in the same communication, alluded to the difficulty experienced in carrying nitric acid, but subsequent correspondents pointed out how readily the difficulty could be overcome by keeping the acid in sealed capillary tubes. In order, however, to distinguish between cloudiness due to albumen and phosphates, a drop of household vinegar is sufficient, without having recourse to any "officinal" acid. Within the last few days we have had an opportunity of seeing an elegant little case, made by Messrs. Hawksley, according to instructions given by a physician, which is certainly the best we have yet had brought under our notice. We think that this even might be improved and rendered more portable if Mr. Kesteven's suggestions were carried out, and a flat slide substituted for test-tubes. In this way the necessity of a spirit-lamp could be dispensed with.

ANOTHER PHILADELPHIAN DOCTOR IN COURT.

IT is gratifying to find, in spite of Mr. Knox's recent decision, the county magistrates of Hanley deciding that the use of the title "Doctor," on the strength of an alleged diploma from "the University of Philadelphia," is a breach of the law. The culprit is James John Foulds, of Farnworth. The use of the title was justified on the ground of the recent decision of Mr. Knox, that where the source of the diploma is published there is no fraud. It is not reported that in this case the source of the diploma was published. Be this as it may, the magistrates were unanimously of opinion that the case had been proved, and imposed a penalty of £20 and costs on the defendant. A case for a superior court was granted. It will be a misfortune if the superior courts take a different view from that of the magistrates in this case of using such perfectly worthless titles, which have been repudiated even by the United States. It is amazing, after recent exposures of the nature of these degrees and of the way in which they are got, that any man should be found bold enough to use them.

CORN-FLOUR AND INFANT LIFE.

IN the course of an inquest recently held at Plumstead on the body of a child aged four months, it transpired that the deceased, who had been put out to nurse, had been mainly fed on corn-flour and water. On such a diet any infant would sooner or later perish. Corn-flour contains little else than the granules of starch, and, although possessing a certain amount of heat-producing force, is in no sense a flesh-former. When employed it should be always given with milk, as mixed with water only it is useless. When an infant is deprived of its natural supply of milk, its food should be assimilated as much as possible to that provided by the mother. Hence on the excellent substitute found in the cow's milk (always diluted with water be it understood) the most delicate offspring can be successfully reared. Generally speaking, the diet should be exclusively a milk one until the age of one year is reached, and for some time after that broth or beef-tea should be very sparingly given. Meat and potatoes should be carefully eschewed, and we are convinced that the reckless use of these is responsible for many of the formidable evils which beset childhood.

GRATUITOUS MEDICAL ADVICE IN LIVERPOOL.

AT the last meeting of the Liverpool Medical Institution, held on Thursday, the 4th inst., a young member, sometime resident in the town, proposed that the subject of gratuitous medical relief, as afforded in the public institutions, should be submitted to the consideration of a sub-committee, preliminary to a more general meeting of the profession in the form of a conference. From statistics we have been enabled to obtain, it seems particularly necessary that this matter should be taken in hand. So far as we can remember, neither this nor the allied subject of practice by unqualified practitioners has created any stir in that "good old town," and we sincerely hope the matter will not be allowed to drop until some definite action be taken. The amount of gratuitous medical aid in Liverpool is said to exceed in proportion that of Manchester, Birmingham, Edinburgh, and Glasgow. This state of matters needs investigation. It is

doubtless only a part of the great social problem of Liverpool; but is not the less a serious and interesting part, requiring detailed trouble and investigation to be understood.

COMPENSATORY HYPERTROPHY OF RIGHT CEREBRAL HEMISPHERE.

AN instance of the above has been recorded by M. Luys (at the meeting of the Société de Biologie of Paris). A woman, attacked with right hemiplegia, suffered for eight months from aphasia. She then somewhat suddenly recovered her speech, and died eight years afterwards from pulmonary disease. The left cerebral hemisphere exhibited a very marked wasting of the third frontal convolution; and the right hemisphere was larger than the left, weighing 115 grammes heavier. The hypertrophy was most marked in the parietal lobe, which presented two abnormal convolutions not found in ordinary brains; the third frontal gyrus was particularly enlarged. The hemisphere roughly resembled that of the sheep. M. Laborde questioned whether the hypertrophy was not simply apparent, from the atrophy of the left hemisphere; but M. Harney affirmed that examination of the brain showed clearly a very marked enlargement of the left parietal lobe. M. Ranvier inquired whether the hypertrophied convolutions had been microscopically examined. He himself had been able to make out, generally speaking, that in the normal brain the nerve elements become hypertrophied as age advances, whilst the connective tissue and the vessels remain stationary. It would be interesting to know whether increased functional activity leads to an increase in the nervous elements. In the report (*Le Progrès Méd.*) from which we quote it is not stated whether the brain was examined microscopically or not.

CORK OPHTHALMIC HOSPITAL.

AN interesting report of this hospital for the year 1876 has just been issued. The number of beds is now 25, the average daily number of patients in the hospital being 19. 200 persons have been received into the hospital during the past year, and 1607 have been treated as out-patients. The number of ophthalmic cases was 1070; of ear cases, 307; of throat cases, 130; and of dental cases, 100. Dr. MacNaughten Jones, the indefatigable surgeon, assisted by Dr. Grattan, performed over 400 operations on the eye, ear, and throat, and Mr. J. Corbett, junior, performed 100 dental operations. Through the liberality of the governors the hospital is open free of charge to such of the students of the Queen's College as desire to attend, and demonstrations with the ophthalmoscope and laryngoscope are given daily.

Since the opening of the hospital in 1868, 1102 patients have been treated inside, and 12,359 have been attended in the extern department. These figures afford very satisfactory evidence of the good that has already been accomplished by this useful institution.

MR. GLADSTONE ON "SPIRITUALISM."

OUR humorous contemporary, *Punch*, was right in his comic vaticination. "A Great Statesman" replies magnanimously and in his usual style to an address from the promoters of "Dr." Slade's appeal. The right honourable gentleman is precluded from signing the petition by a general rule. Mr. Gladstone leaves it to be inferred that but for this general rule he would have no objection to make common cause with the friends of this persecuted medium. Opinion is reserved. In short, Mr. Gladstone professes himself open to conviction on this and every other subject, and while the state of mind indicated may be edifying to a few ardent admirers, it is impossible not to feel that it is unwise. The anti-vaccinators drew inspiration from the ex-premier's doubt. It did them no great service; and the untimely appearance of small-pox probably saved the country from an improper use of Mr. Gladstone's reply. We do not for an instant believe the convictions of this accomplished student of history are as colourless as he represents them, and we must again urge that in the interests of public prudence Mr. Gladstone should either refrain from answering the multitudinous requests for his support, or contrive to couch his rejoinders in language less cloudy, and therefore not so likely to darken counsel and fog the feeble in mind.

SERIOUS OUTBREAK OF TYPHOID FEVER AT BARROWFORD.

WE have ascertained some particulars regarding an alarming outbreak of typhoid fever at Barrowford, a large and thriving manufacturing village near Burnley, containing about two thousand inhabitants. Dr. Dean, the medical officer of health for Burnley, visited the locality on Monday last. There were in all fifty cases of typhoid fever, and on inquiry he found that all the families affected were supplied with milk from a farm in the neighbourhood. On proceeding to this farm he found six cases of the same disease in the house. No case has occurred in any house supplied with milk by other farmers; and, in the opinion of the medical officer, the outbreak is attributable to milk-poisoning. Most of the cases are, we are glad to say, of a mild character, and only one death has occurred.

POISONING BY MISADVENTURE.

THE Dispensary Committee of King's College Hospital have adopted a valuable precaution against poisoning by misadventure, by insisting that all liquid medicines intended for external use shall be dispensed only in proper fluted poison-bottles. Every out-patient must either bring such a bottle or purchase one at the dispensary at cost price. This arrangement was made four months since, and has been found to work extremely well. It is now incumbent upon every hospital and dispensary to follow the salutary lead of King's College Hospital. While speaking of this hospital, we may remark that a great deal has been done during the past year to weed out from the out-patients persons who are not fit and proper objects of charity.

MEDICAL PRACTICE AND THE FLOODS.

MEDICAL practitioners in the flooded districts of the country are placed in strange straits to get at their patients. In some instances boats have to be substituted for wheeled carriages; in others, where the water lies less deep, the practitioner can only reach his patient on the upper floor of the house dry-shod by passing through the lower on a causeway made of chairs and tables; but, in view of the precariousness of this footway, some practitioners are contemplating carrying with them a ladder, by means of which they may enter the bed-chamber through the window. The distressing position of the patients under such circumstances, particularly of such as are in childbed, may be conceived.

THE MILITIA SURGEONS.

THE Militia Surgeons have drawn up a statement of the facts bearing upon their case, showing how they have been deprived of the larger portion of the incomes derived from their appointments by the Royal Warrant of last year and the War Office instructions thereon. Copies of this document have been distributed among M.P.s and Lord-Lieutenants, in order that they may be made acquainted with the

nature and causes of the grievance of which the militia surgeons have to complain. The case is a narrow one—viz., that they hold their commissions under an Act of Parliament, and that it is now sought to deprive them of certain advantages which will, in effect, be almost tantamount to depriving them of their incomes, without offering them any compensation.

VISCERAL SYPHILIS AT THE PATHOLOGICAL SOCIETY.

WE may remind our readers that on Tuesday next, the 16th inst., specimens and histological preparations, illustrative of visceral syphilis, will be shown at the Pathological Society. In order to allow of a satisfactory examination of the specimens, exhibitors have been invited to bring them forward at eight o'clock, or half an hour before the meeting of the Society.

MEDICAL TEACHERS' ASSOCIATION.

AT a meeting of the Council of the Medical Teachers' Association, held on Friday, January 5th, 1877, it was resolved:—

"That, in consequence of the lamented deaths of the President of the Association, Mr. Campbell De Morgan, and of the Treasurer, Dr. Sibson, the Council think it desirable that a general meeting of the Association should be held on the third Friday of November of the present year, for the purpose of electing officers to fill the vacant posts, and to transact other business."

CHAIR OF BOTANY IN ABERDEEN.

THE chair of Botany in the University of Aberdeen is, we understand, about to be vacant by the retirement of Professor Dickie. The appointment to the chair rests with the Crown. The present emolument of the chair is about £550, of which £300 is derived from endowment, the rest from class fees. The duties of the chair require the professor to be resident during four months of the year, from the beginning of April to the end of July.

JUDGING from the space devoted by the American medical journals to a consideration of the subject, the adoption of the metric system in prescriptions by the profession in the States appears imminent. It is somewhat singular that no attempt has yet been made to introduce it into England. That it has many advantages over the old plan may be readily demonstrated. For instance, in the metric system there is but a single unit—the gramme, while in the other there are five units of weight—grain, scruple, drachm, ounce, pound, and four units of capacity—minim, fluidrachm, fluid ounce, pound. Metrically, all medical substances are dispensed by weight, as against the present plan, by which some are dispensed by weight, others sometimes by weight and sometimes by measure. The *Medical Record* of New York, after dealing exhaustively with the proposed change, confesses that it is unable to discover any disadvantages in the metric system.

PREVIOUS to the departure of the Duke of Abercorn, late Viceroy of Ireland, from the country, His Grace was presented by the President, Vice-President, and Council of the Dublin College of Surgeons with a valedictory address, expressive of their deep regret at his resignation of the exalted office which he filled with "so much even-handed justice, dignified firmness, and signal benefit to the country," and of their high appreciation of the honour conferred by His Grace upon the College in laying the foundation stone of the new library and museum buildings in connexion with the institution. His Excellency replied in most cordial terms.

A MISCHIEVOUS letter having appeared in the *Irish Times*, charging the Governors of the Dublin hospitals with conniving at the practice of vivisection within the walls of these institutions, Mr. Rawdon Macnamara, in his capacity of ex-President of the Royal College of Surgeons, its representative on the General Medical Council, and as a professor and a surgeon, has published a reply in the same paper, in which the utterly groundless nature of the charge is demonstrated—a charge which, made on the eve of Hospital Sunday, might have most prejudicially affected the collection. Mr. Macnamara challenges any member of the Anti-Vivisection Society to bring forward one tittle of evidence in support of the allegation that vivisection has been practised in a Dublin hospital.

THE attention of the Limehouse District Board of Works has been called to some statistics in the last report of their medical officer of health, proving that an unusually high rate of infantile mortality prevailed in the district. During the past year there had been registered 1314 deaths, of which number 724, or more than half, had been children under five years of age. A considerable amount of this mortality is ascribed by the medical officer of health to tabes mesenterica, a disease which we may state is largely dependent on dietetic errors. The general death-rate of Limehouse is 24 per 1000 annually, a higher figure than that given for the neighbouring parishes of Ratcliffe, Wapping, and Shadwell.

A JUROR at the Middlesex Sessions, on Monday last, claimed and obtained exemption from serving, on a somewhat novel ground. He was an undertaker by trade, and he represented that his principal business lay in a district in which small-pox was very prevalent, and that last week he had buried a dozen persons who had died from this disease. On this ground he represented that he was dangerous to the health of persons among whom he would have to sit in court, and urged "I am not fit to be here, I know." The argument was a telling one, and was acquiesced in both by Mr. Serjeant Cox and the jury; its success will, in all probability, lead to its imitation on other similar occasions.

ON the reading of a letter from the vestry of Marylebone at a late meeting of the Metropolitan Asylums Board, in which the latter body were urged to seek, if necessary, further powers to provide accommodation for necessitous persons suffering from small-pox not being paupers, or who could not be properly isolated in their own houses, Dr. Cortis pointed out that the Metropolitan Asylums Board was not the sanitary authority of the metropolis, as assumed by many. Dr. Cortis said he considered it the duty of the managers to appeal to Government for the establishment of a sanitary authority, "so that the metropolis might be governed as it ought to be." Dr. Cortis's view appeared to meet with much concurrence.

THE following are the names of the committee appointed by the Admiralty to inquire into the cause of the outbreak of scurvy in the recent Arctic Expedition:—Admiral Sir James Hope, G.C.B. (president); Admiral Sir R. Collinson, K.C.B.; Vice-Admiral E. A. Inglefield, C.B.; Dr. James Donnett, Inspector of Hospitals, R.N.; Dr. F. R. Fraser, F.R.S.E. Mr. Vansittart Neale has been appointed secretary.

AT the quarterly meeting of the Directors of the Naval Medical Compassionate Fund, held on the 9th inst., Dr. J. W. Johnston, Inspector-General, in the chair, the sum of £100 was distributed among the various claimants.

THE City, which until the last week or two had been free from small-pox, no longer enjoys the immunity. At a meeting of the City Commissioners on Tuesday last Dr. Sedgwick Saunders reported that fifteen cases of the disease had occurred, fourteen of the patients being between the ages of 23 and 25. On the recommendation of their medical officer of health, the authorities determined to establish vaccination stations for adults in various parts of the City, and to make some provision for the accommodation of persons convalescent from small-pox.

THE Manchester and Salford Sanitary Association continues to exercise its useful functions. In its last weekly report, now before us, we find that small-pox is decreasing to some extent in the two towns, but it is observed that after a year's duration the epidemic is of about the same extent as when it first began to create apprehension. Measles and erysipelas have also decreased, while scarlatina and whooping-cough are about stationary. The average death-rate for Manchester was 25 per thousand, and the birth-rate 33·2.

Dr. HENRY HUMPHREYS, M.A. (Cantab.), and Fellow of St. John's College, Cambridge, has been elected to the office of Assistant-Physician to the Hospital for Sick Children, Pendlebury. Dr. Humphreys in 1867 graduated as Fifth Wrangler in the Mathematical Tripos, and subsequently pursued his medical studies at University College, London, and at the Middlesex Hospital, where he has for the last two years been Medical Registrar.

THE Weekly Board of St. George's Hospital at their last meeting passed a resolution to the effect that a special department should be established for the treatment of out-patients suffering from diseases of the throat; the department to be under the care of Dr. Whipham, physician to the hospital.

THE managers of the Asylums Board have completed the arrangement for taking the building at Limehouse for the accommodation of from 150 to 180 small-pox patients, the proprietor having agreed to withdraw the clause to which the managers objected.

POISONOUS MATERIAL IN HAIR-DYES.

IT is right that the medical profession and the public should understand the poisonous nature of many of the preparations commonly sold as hair-dyes and hair-restorers. In spite of the Pharmacy Act, the sale of many active poisons is still, in this country, entirely unrestricted. It is true that arsenic, and a certain number of other common poisons, are under legislative control, and may not be sold retail unless properly described, and then only under certain conditions. But these provisions do not extend beyond a comparatively small number of well-known substances. Other poisons may be, and are, openly sold for domestic purposes without any warning of the risks attendant upon their misuse.

Such sale we hold to be dangerous, and morally wrong. Almost every day affords some example of the serious accidents which occur in households from the use of poisons, even when those poisons are properly described. When no printed warning is given, and particularly when the printed description is of such a nature as to lead to the inference that no poison is present, the danger is increased tenfold. Everyone knows the carelessness with which bottles are often treated in houses, and how apt ignorant persons and children, not to speak of those who ought to know better, are to make use of the wrong bottle. Even the word "poison," printed in large type, and the use of a peculiarly shaped bottle, are not found sufficient to prevent accidents altogether, and the sale of poisonous substances without any such warning ought, we think, to be prohibited in every case by law.

Many of the hair-restorers, or more properly hair-dyes, so extensively advertised and used, both in England and America, afford flagrant examples of the danger to which we allude. We have lately purchased and submitted to the independent analysis of two well-known chemists, twenty-one samples of the preparations of this kind now in use in England, including, we believe, nearly all those which are best known, because most extensively advertised. The results of these analyses abundantly justify the remarks we have made, and we therefore present their main features to our readers. We of course take no notice of constituents, such as scent and glycerine, which have no significance in our present inquiry.

Out of the 21 examples examined, no less than 14 were practically identical in their nature. They contained sulphur in suspension, and also lead in varying, but always in very considerable, quantity. Three of these preparations bore American labels, the rest were English. The descriptions varied a good deal. Only one was plainly described on the label as poisonous if taken internally, while many were described as "perfectly harmless," "free from injurious substances," and so on. The prices varied from 1s. to 6s. per bottle.

Two more samples, one of them American, were found to contain lead and sulphur, but in a different form. The sulphur was present as hyposulphite, and, in fact, these preparations may be substantially imitated by adding hyposulphite of soda to a solution of a lead salt. A white precipitate first appears, which dissolves in excess, and the solution so obtained *does not give a precipitate with iodide of potassium*. This is noteworthy, because in the handbill which accompanies one of the samples purchasers are warned against the dangerous hair preparations which contain lead as likely to lead to paralysis of the brain and insanity, and are directed to test all preparations with *iodide of potassium*.

In another sample, an American one, no free or loosely combined sulphur was found, but only lead in considerable quantity.

Another of the preparations was contained in two bottles, in one of which ammonio-nitrate of silver, and in the other pyrogallic acid, was detected. This, therefore, belongs to an entirely different class from the preceding.

The remaining three preparations analysed were intended for lightening, instead of darkening, the colour of the hair. No substantial difference between these samples was detected. Each was found to contain a tolerably concentrated and slightly acidulated solution of peroxide of hydrogen. It is well known that this is the active agent in preparations of this kind. It can hardly be considered as poisonous, but its action on the hair is said to be injurious. The silly fashion which prompted its use is, we believe, dying out.

It will be seen that, out of the 21 samples examined, no less than 17 contained lead. This lead was present, it must be remembered, not as a mere trace, but in most cases in large and deleterious quantity. In one sample, and that not the worst, we found five grains and a half of lead, equivalent to about ten grains of crystallised sugar of lead in each fluid ounce of the liquid.

A subsidiary question arises out of this inquiry which deserves the most careful consideration of the medical profession. Is it not possible that lead-poisoning may sometimes be produced by the incautious use of these preparations? Evidence upon the point is conflicting, and many physiologists hold that such an absorption through the scalp

cannot take place unless the skin is broken. Taylor quotes a case to the contrary which came within his own observation, and many others of the same kind have been brought to our notice. But few, if any, of these cases are definitive, and real proof appears still to be lacking. It is, perhaps, not likely that such poisoning very commonly occurs, if it ever does. In the majority of instances the liquid would probably be used with a certain amount of discretion, and would be applied mainly to the hair rather than to the head. But if the preparation were used incautiously, if the lead solution were rubbed frequently and in considerable quantity into the skin of the head, we are inclined to think that danger would exist. It would almost certainly exist if the skin were broken.

Many recorded cases show that very minute quantities of lead may after a time produce symptoms of poisoning. Certain circumstances, moreover, induce us to think that incipient lead-poisoning is more common than is generally supposed. In all chemical laboratories the testing for lead in drinking-water is a common experience. The number of samples of water sent for this purpose is surprising. Now, in a great many instances no lead is found, and it is worthy of consideration whether in some of these cases the symptoms which threw suspicion unjustly on the water may not have been caused by the use of lead cosmetics.

The subject is a highly interesting one, and we shall be glad to receive evidence upon it from any of our readers.

THE SMALL-POX EPIDEMIC.

DURING the first week of 1877, the hospital accommodation provided by the Metropolitan Asylums Board proved quite insufficient to meet the requirements of small-pox patients seeking admission. At the meeting of the managers, on the 6th inst., it was stated that 881 beds had been provided for the treatment of small-pox, and that not only were all these beds occupied, but about 200 patients had been necessarily refused admission during the week. The complete failure of the managers of the Metropolitan Asylums Board to keep pace with the rapid increase of small-pox cases reflects the greatest discredit upon the sanitary authorities of the metropolis, who have with one exception ignored their responsibility to provide hospital accommodation for non-pauper patients suffering from infectious diseases. The result of this neglect has been that the hospitals provided by the Asylums Board, intended to relieve workhouses of cases of infectious diseases, have on the outbreak of the present small-pox epidemic been filled by non-pauper cases. The managers of the Asylums Board have been placed in an entirely false position by having, as it were, thrust upon them responsibilities which should only belong to a properly constituted central metropolitan sanitary authority. The thirty-nine vestries and district boards of London at present constitute the only sanitary authorities of the metropolis, and there is actually no community of action among them. Each authority has its separate medical officer of health, and these medical officers of health are engaged in private practice; hence London is in an infinitely worse position than the other large English towns, where there is but one sanitary authority, with one health officer, who, in large towns, is almost invariably debarred from private practice. Whether the sanitary government of London be vested in the Metropolitan Board of Works, or in a separate Commission or Council in which the 39 vestries and district boards are equitably represented, it matters little, so long as the lesson taught by the utter incompetence of the present 39 disjointed authorities to deal satisfactorily with the public health of London is not forgotten.

The fatal cases of small-pox registered in London in the week ending the 6th inst. rose to 116, from 97 and 75 in the two preceding weeks; this is the highest weekly number that has occurred during the present epidemic. These 116 fatal cases included 47 in the Metropolitan Asylum Hospitals, 5 in the Highgate Small-pox Hospital, 2 in the North-street Infirmary (Poplar), one in the House of Correction, and 1 in an ambulance; the remaining 60, or 52 per cent. of the total cases, occurred in private dwellings. Now that the accommodation has so markedly fallen short of the demand, a further considerable increase in the proportion of cases occurring in private dwellings must soon be expected. The 116 registered deaths from small-pox during the week included 15 of patients who had resided in Lambeth, 11 in Poplar and Bow, 10 in Hackney, 9 in Battersea, 9 in Stepney, 6 in Camberwell, 6 in Southwark, 6 in Kensington, and 5 in St. Pancras. Excluding two hospital cases admitted from Acton, and two of which the previous residence was unknown, it appears that 15 belonged to the West, 22 to the North, 2 to the Central, 27 to the East, and 46 to the South districts of London. The increase in the fatal cases was most marked in East and South London. The rapid increase in the prevalence of the disease may be judged from the fact that in the middle of September last the small-pox hospitals of the Asylums Board contained less than one hundred patients; whereas, on the 6th inst., if the hospital accommodation had been equal to the demand, the number of patients under treatment would have considerably exceeded a thousand.

In the outer ring of suburban districts eight deaths from small-pox were registered during the week ending the 6th instant, against but three in the previous week; of these, four occurred in Croydon, and one each in Kingston, Richmond, Finchley, and West Ham. These scattered cases augur badly for the future of the epidemic around London, unless the local sanitary authorities meet their responsibilities in a manner different from that of the metropolitan authorities.

Among the twenty largest towns, small-pox caused 22 deaths during the first week of January in Liverpool, and 8 in Manchester and Salford, in addition to the 116 in London; whereas no fatal case of the disease occurred in any of the sixteen other towns. In fourteen of these twenty towns, no death from small-pox was recorded during the last quarter of 1876; whereas 592 occurred in London, 144 in Liverpool, 129 in Manchester and Salford, and 1 each in Brighton and Portsmouth.

SEWAGE-DISPOSAL.

I.

THE long-expected Report of the Committee appointed by the President of the Local Government Board, Mr. G. Sclater-Booth, to inquire into the several modes of treating town sewage has at length been published. This Committee, appointed in June, 1875, consisted of Mr. C. S. Read, M.P., the then parliamentary secretary of the Board; Mr. Robt. Rawlinson, C.B., their chief engineering inspector; and, as assistant, Mr. S. J. Smith, the well-known secretary to the late Rivers Pollution Commission. Mr. Sclater-Booth's letter of instructions to the Committee set forth that the attention of the Local Government Board had for some time past been directed to the great difficulties experienced by sanitary authorities in devising means for the disposal of the sewage of their districts; and that, having regard to the frequent applications which are made to the Board for advice on the subject, it was deemed expedient that special inquiry should be made, under their direction, "into the practical efficiency of the chief systems of sewage-disposal now in operation, and for which loans had been sanctioned" by the Board. The systems to which Mr. Sclater-Booth refers are specified as "those for the disposal (1) by sewage-farms, (2) by land-filtration, and (3) by precipitation and by chemical processes." Further, the Committee is instructed that "the points to which attention must be directed, and upon which the Board are desirous of obtaining information, are mainly the following: (1) the

nature and character of the works, and their actual cost; the rateable value of the district, and the population for which the works are available; (2) the length of time during which they have been in operation; (3) the effects of the works on the sanitary condition of the district, so far as it can be ascertained generally; (4) the efficiency or non-efficiency of the works as a means of disposing of the sewage of the district, and the quality of the effluent water in relation to its purification and deodorisation; (5) whether any nuisance is or has been occasioned by the works; (6) the annual outlay required for their maintenance and working, as distinguished from repayments of principal and interest, which should be shown separately; (7) in the case of sewage-farms, the acreage, description of soil, system of cultivation, the kind of crops, and the financial results; and (8) in other cases, the amount realised by the sale of sewage." Finally, the Board expressed a desire that at least four examples of each system of sewage-disposal should be included in the inquiry, and that the separate reports of the Committee on these systems should be accompanied by a general report on their respective merits.

The report of the Committee is now before us. It consists, as directed, of a general report, and of an Appendix containing special reports of the inquiries into particular systems of sewage-disposal. The Committee visited Edinburgh, Wrexham, Chorley, Blackburn, Doncaster, Harrogate, Wolverhampton, Leamington, Warwick, Rugby, Banbury, Bedford, Croydon, Norwood, Reigate, Worthing, Aldershot, Romford, Tunbridge-wells, Cheltenham, Merthyr Tydfil, Barking, Norwich, and Enfield, in each of which places sewage-irrigation is carried out; Kendal, where the downward intermittent principle has been adopted; Leeds, Bolton, Coventry, Tottenham, Edmonton, and Hertford, where sewage is treated by a chemical process; Bradford, Birmingham, and Luton, where sewage-sludge is precipitated by the addition of lime; and Halifax, Rochdale, Salford, and Manchester, where the pail system is partially used for dealing with excreta. The Committee also visited Leyden and Amsterdam, where the Liernur pneumatic system is to some extent in operation; Paris, where a portion of the sewage is utilised in irrigation; and Brussels and Berlin, where the sewage is about to be (!) disposed of in irrigation.

The chief interest of the report to us consists in the general results of the inquiry as set forth by the Committee; and we venture to express the opinion that a stranger document than the report in which these are set forth was never before issued by a great public department. A report strictly limited to the subjects of Mr. Solater-Booth's instructions could not have failed to be helpful to sanitary authorities in a high degree; and that ample materials for such report were furnished by the particular investigations carried out by the Committee is abundantly shown in the special reports of the different systems of sewage-disposal examined by them, given in the appendix to the general report. But the Committee appears to have construed its instructions as rendering it incumbent upon it to discuss and express opinions promiscuously upon all sorts of things directly or indirectly relating to sewage, quite irrespective of evidence relating to them furnished in the report. The result is a most extraordinary medley. Thus we have sections on "town scavenging, on "town sewers and house drains," on "unventilated foul sewers, and sewage tanks, dangerous"; on "carelessly cleansing sewers during periods of sickness, dangerous"; and "on drains and waterclosets," mixed up with the subjects proper of the report. And in the appendix we have dissertations on "epidemic disease," and on "the conditions of some towns, villages, and houses in Great Britain in 1876," of which more another time.

Reversing the ordinary arrangement of reports, the conclusions of the Committee are stated first. Of these "conclusions" the first three have no relation to the subject of inquiry, and are quite apart from evidence given in the report; and parts of number two are at variance with, if not absolutely in contradiction to, the statements of the report. The remaining conclusions (which require but six more lines for their expression than the first three) are the conclusions proper to the inquiry. They have an exceptional importance, not perhaps in the sense the Committee, or even the Local Government Board, attaches to them. Indeed, we question whether the Local Government Board would have permitted their publication if they had rightly appreciated the unfavourable influence they must exercise over the action of sanitary authorities in the matter to which they refer. This, as we shall hope to show next week, depends almost wholly upon the fact of the Committee having departed from its original instructions, and having attempted to deal with matters outside them, for which its constitution was unfitted, even (as was not the case) if these matters had been included in the inquiry.

THE HARVEIAN SOCIETY.

THIS Society held its annual meeting and *conversazione* on Thursday last, the 4th inst., at its rooms in Tichborne-street. The treasurer's report was read first, and it showed that the finances of the Society were in a flourishing condition. The report of the Council was next read, and was of a satisfactory nature. The number of members was increasing, and the papers read were of a character to enhance the reputation of their authors. The out-going President, Dr. Frederick Cock, then read his address. He alluded to the loss the Society had experienced last year by death, to the restraints upon vivisection, and to the course of medical study. He had a good word for the old-fashioned apprenticeships, and thought that medical teaching ought to contain more of the tutorial element. He then spoke of the position of the profession, and said that self-respect must ever command the respect of others. A vote of thanks was proposed by Mr. W. Adams, and seconded by Dr. Sedgwick, after which followed the usual votes of thanks to the different officers. The exhibition of pictures, etchings, and other works of art, which has become quite a feature of the Harveian Society, was very good. The number of medical artists is considerable, and the works of Sir Henry Thompson, Seymour Haden, Mr. Propert, Prescott Hewett, Lennox Browne, Eversbed, and Dr. Gilbart Smith, were accompanied by drawings by Mr. Brock. Some of these works were of much merit. Dr. Farquharson lent a number of pictures by well-known artists; while Dr. Reginald Thompson sent some new lustre ware of his own designs, the material of which is new, being the invention of Mr. De Morgan. There was a good attendance, and the *conversazione* passed off pleasantly. Some very fine microscopic objects were shown by Mr. Collins and Mr. Wheeler; while the show of instruments by Pratt, Arnold and Son, Mayer and Meltzer, and Krohne and Sesemann, was very interesting, and some small and convenient batteries were exhibited.

The following is the list of office-bearers for the ensuing year:—President: Mr. T. Carr Jackson. Vice-Presidents: Dr. Thomas Morton, Mr. W. F. Teevan, Mr. W. B. Owen, Dr. Hughlings Jackson. Treasurer: Mr. Henry Power. Hon. Secretaries: Mr. H. E. Sewill, Dr. J. Milner Fothergill. Council: Dr. John Easton, Dr. E. Symes Thompson, Mr. H. Cripps Lawrence, Mr. George Eastes, Dr. Robert Farquharson, Dr. F. Cock, Dr. J. S. Ramskill, Dr. Alfred Meadows, Dr. Percy Boulton, Mr. Stamford Felce, Mr. F. J. Gant, Mr. George Field.

POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

THE following circular has been forwarded to every Poor-law medical officer in England and Wales:—

Dear Sir,—In again soliciting your co-operation, allow me to state that though no substantial advance of our interests has been made by the efforts of the Association during the past year, yet we hope that what we have done will tend to future good. The greatest barrier to success has been want of combination and of unanimity amongst our brethren of the service, which is to be attributed partly to want of time, apathy on the part of some, especially those who have personally nothing to gain, and the fear of offending authorities. If all these difficulties to union could be surmounted, and our Association became known, *per se*, or as a branch of the British Medical Association, any reform within reason could be effected.

For the information of non-members, I may mention that the objects we are now especially striving for are—The adoption of the dispensary system in all large towns and

rural districts where practicable; compulsory superannuation after twenty-five years' continuous service; increased remuneration for services where clearly called for.

The Association, through its council, forms a Board of Reference in all cases of oppression on the part of authorities, and in matters of professional etiquette; and, although it has no special organ of its own, the medical press is always ready to second our efforts, and to expose any abuse which may be brought under our notice.

For the convenience of our provincial members we have secured a central position, of old medical repute, 3, Bolt-court, Fleet-street (the rooms of the first Medical Society of London), where members can meet each other, as at a club, from 12 to 5, and where council and general meetings will be held at stated intervals.

Our president, Dr. Lush, M.P., has kindly consented to fill the office for another year; and Dr. Rogers continues to occupy the position of chairman of council with his usual energy, combined, as it is, with his intimate knowledge of all Local Government Board matters.

The Council have also added to their number the names of several gentlemen, who will be provincial members of their body, and hope, by infusing fresh blood, to stimulate the better working of the Association.

In conclusion, I must add that my own efforts have fallen very short of what I could have wished, or may have been expected of me; but pressure of engagements must be my excuse, having been, up to the present time, unassisted by any paid secretary.

I am, yours truly,
J. WICKHAM BARNES, F.R.C.S., Hon. Sec.

Correspondence.

"Audi alteram partem."

THE METROPOLITAN ASYLUMS BOARD AND THE SMALL-POX EPIDEMIC.

To the Editor of THE LANCET.

SIR,—I have received so many indications of approval of the views expressed in my previous letter, and the public journals of the past week so teem with illustrations corroborating them, that I am induced to pursue the subject, and further develop the plan therein roughly sketched for the establishment of an improved central governing body for the metropolis in sanitary and Poor-law matters.

The objects desired are evidently:—

1. To combine the actions of the various local sanitary authorities under one central supervising head.
2. To supplement the action of such authorities in those particulars wherein it is deficient, and
3. That the central authority should thoroughly represent that portion of the public who are affected by its action, and provide the funds it will expend—viz., the ratepayers of the metropolis.

It is further evidently desirable to accomplish these objects with no more derangement of existing arrangements than is absolutely necessary.

For convenience I shall not treat these heads precisely in the order thus stated.

Keeping, then, the latter object in view, I would propose for the central authority a Board similar in constitution to the Asylums Board, but having a broader basis of election. The present Board consists of forty-five managers, elected by the various Boards of Guardians, in numbers proportioned to their valuation to the poor-rate. To these is added a certain number, not exceeding one-third, of the elected managers nominated by the Local Government Board. I would, instead, propose that the elected members shall be chosen by the vestries and the board of guardians in the following manner:—In the large parishes, where the vestry and guardians represent the same area, as in Lambeth, Marylebone, &c., let the present representation be divided between them in equal moieties, or, if the numbers are uneven, give the guardians the extra member; the representatives elected by each—from among their own members, or otherwise, as they may seem fit—being ex-officio members of both bodies. In unions composed of two or more parishes, such as Holborn, St. Saviour's, &c., let the vestry or district board of each parish elect a representative, who shall also be, ex-officio, a member of the Union Board of Guardians and of the individual vestry which elects him. This would slightly increase the number of managers to the extent of about half a dozen, which would be an advantage, as the present number is hardly sufficient for the various committees.

In place of the present nominated members I would have an equal number—that is, one-third of those elected in the manner just indicated—chosen by the metropolitan divisions of the magistrates of the counties of Middlesex, Surrey, and Kent, also in proportion to the respective valuation, and also optionally as to from among their own number or not.

These gentlemen are already ex-officio members of the boards of guardians of the districts in which they reside; many of them are amongst the most useful members of the Asylums Board, and we should thus retain their services, while getting rid of the objectionable element of nomination which many of them find so irksome.

This itself would be no small gain. It is no secret that there is a hitch in the present system of nomination. Many of the managers nominated by the Local Government Board now find themselves at variance with their nominator on various important matters of detail. The Board insists on certain forms which the managers declare to be impracticable or very inexpedient. The question having arisen since their nomination, they hold themselves at liberty to join their elected colleagues in resisting strenuously the dictation of the Central Board. But their period of office expires in April next, and they feel that they must decline renomination, inasmuch as if they accepted after knowing the views of the Board they could hardly any longer resist carrying out those views; thus their high sense of honour and duty, which renders these gentlemen's services all the more valuable, itself may deprive the public of their services.

By the plan now sketched we should obtain a Board thoroughly representative of all classes of ratepayers in the metropolis *en rapport* with all the local bodies, with the vestries and their officers of health, the guardians and their district medical officers, and the magistrates who manage the Metropolitan County Lunatic Asylums. By this simple alteration we should obtain a central authority qualified, on receiving the requisite legal powers from the Legislature, to supplement not only the local action of boards of guardians in relations to sick paupers as the Asylums Board now does, but also of the vestries in relation to the classes above that of paupers. It may be well to give an illustration of the improved power of working such a Board would possess. At present, if a pauper is taken with fever or small-pox, the parochial district medical officer can send him off at once to the proper hospital. But if anyone in a class above the pauper, say a domestic servant, or an *employé* in one of our large establishments, be so attacked, there is no such resource open to him or her, although either he may be perfectly willing to pay such a sum as would be necessary to secure him the benefit of such an institution, or his employer to do it for him; for it is evident that the loss to the latter might be enormous, were it known, for instance, that one of the large drapers, or other shops in Regent-street, had one of their *employés* ill on the premises with small-pox, and such things have been. To get such a person into one of our hospitals at present a species of smuggling takes place. The employer, or his medical attendant, uses his influence with the relieving officer, who fills up the necessary papers, gets them signed by the parish doctor, and sends the patient to the hospital. In this method, not merely hundreds, but literally thousands of people during the last and present epidemic have been sent to these hospitals as paupers, who have no wish to be chargeable to the rates, and who, in fact, are no more paupers than you or I. It is evident that such a system is false, and should not exist. Under such a one as I propose in substitution, all that would be necessary in this case would be that the medical man in attendance should give a certificate as to the disease, which might perhaps be countersigned by the district medical officer of health, that the employer or ratepayer should sign a printed form of undertaking to pay the expenses necessary for the patient's

treatment in hospital (probably about two guineas per week) when he could at once be removed in the ambulance.

I need not say more on this, the second of the objects stated in the early part of this letter. Your knowlege and experience will supply many examples, and I think I have sufficiently filled in the outline of my sketch. I may, however, add that if the Asylums Board, or another appointed in its place, had the duty of providing for the class above that of paupers, as just indicated, they would have no more, probably less, difficulty than at present, for this reason: such a board ought to prepare in times of health against epidemics, but when the Asylums Board have desired to make such preparation they have been stopped, and have been told that, inasmuch as their duty is merely to provide for paupers they have done sufficient, consequently when the epidemic comes, the provision they have made for paupers is seized upon by other classes, and naturally becomes utterly insufficient for all. It is evident that this new board, thoroughly representative, and immediately under public control, must have the same freedom of action and independence of the Local Government Board, which is possessed by its sister institution, the Metropolitan Board of Works. Indeed, it could with great advantage to the public have assigned to it all the duties at present discharged by the Poor-law Department of the Local Government Board, so far as the metropolis is concerned, which duties are for the most part allied and mixed up with sanitary considerations.

The dissatisfaction and distrust entertained by metropolitan Boards of Guardians towards this department is general and increasing, and has long existed. It was stayed for a time when the late most unpopular Poor-law Board performed its "happy dispatch" by amalgamating with the excellent Medical Department of the Privy Council, and merging into the Local Government Board.

It was hoped that the better department would absorb and improve the worse, but unfortunately the reverse has been the case. Instead of Aaron's rod swallowing that of the false prophets, the latter have got it all their own way; and Aaron himself, represented by Mr. Simon, has disappeared. Nor can we wonder at this dissatisfaction. Notwithstanding the axiom that there should be no taxation without representation, the Local Government Board taxes the metropolitan ratepayers heavily, without the latter having any actual voice in the matter. During the last seven or eight years, about two and a half millions of pounds (£2,500,000) have been spent by the Poor-law authorities in the metropolis in buildings of various descriptions for the accommodation of paupers only. A little over the half million has been spent by the Asylums Board; the remaining £2,000,000 nominally by the various boards of guardians. It is notorious that of this sum a very large proportion, probably not less than half, has been spent, not by the will of the guardians, but at the dictation of the Local Government Board so called—actually of the Local Government Board's inspector—*inspector vastator*, as he has been not inaptly named, from the disastrous effects of his visitations to boards of guardians. It matters not how strenuously the guardians may have objected to items of this expenditure, the Board have got them under a screw in the working of the metropolitan common fund, to which they have only to give a turn, and the guardians must yield. Appeal is a farce. The inspector "recommends" the expenditure; the Local Government Board orders it; the guardians appeal, and seek an interview, at which they find themselves in the presence of two persons—the President and the same inspector. Their objections are of course courteously listened to; but after they have left the room, the inspector advises his chief, who of course has comparatively little personal knowledge of the question at issue, that the guardians are in error, and that his own previously expressed view is all right; and the order is repeated for the guardians to do the work. Much of the work may have been necessary or advisable; it is asserted that much has been neither. But in either case the system is bad; it is indeed monstrous that the deliberate opinion of the representatives of the ratepayers should be overruled by the *ipse dixit* of a single irresponsible individual.

I am, Sir, yours truly,

WILLIAM S. CURTIS, M.D.,
Member of the Metropolitan Asylums Board.

Kennington-park-road, Jan. 9th, 1877.

THE ROYAL COLLEGE OF SURGEONS.

AT the quarterly meeting of the Council of the College of Surgeons, on the 11th inst., the minutes of the former meeting were read and confirmed.

The formulæ of the new Fellowship regulations, having been examined by a Committee to which they were referred, were adopted by the Council, and are now to be submitted to the law officers.

The resolutions of the Court and Board of Examiners on certain letters from Mr. Quain and Dr. Hawkins were, with some slight alterations, adopted.

The consideration of Mr. Barnard Holt's motion was deferred until the next meeting.

Medical News.

DR. MERCER ADAM has been placed on the Commission of the Peace for the division of Holland, Lincolnshire.

SIR G. B. OWENS, ex-Lord Mayor of Dublin, has been appointed a Governor of the Westmoreland Lock Hospital.

DURING the year ending the 31st of March last the revenue derived a total of £123,136 from patent medicines, 15,873,934 stamps having been issued.

HEALTH OF CAMBRIDGE.—At a meeting of the Cambridge University and Town Improvement Commissioners this week, Mr. Anningson, medical officer of health, reported that during the quarter ending Dec. 31 there had been 135 deaths. This, exclusive of members of colleges, gave a death-rate of 16·4 per 1000 per annum. This report was considered very satisfactory, the average death-rate for towns of similar dimensions being about 19·37.

PRESENTATIONS.—A testimonial (in the form of a large handsome embossed silver bowl, mounted on an ebony stand) has been lately presented to T. Arnold Rogers, Esq., M.R.C.S. and L.D.S.R.C.S., by the past and present students of the Dental Hospital of London in appreciation of his untiring energy on their behalf during the period of his Deanship at the London School of Dental Surgery.—Dr. Frederick P. F. Ransom has been presented with a gold watch and appendages by the Committee and Medical Staff of the Sunderland Infirmary, as an expression of the high esteem they feel personally towards him, and as a public recognition of his assiduous and successful labours as senior house-surgeon.

NORFOLK AND NORWICH HOSPITAL.—It will be remembered that in November the Prince of Wales attended a meeting in St. Andrew's-hall, Norwich, to raise funds for an extension of the Norfolk and Norwich Hospital. The appeal thus made to the local public, with the aid of the Prince, has been eminently successful, subscriptions having been received to the amount of £22,942. This sum having exceeded the expectations of the Board of Management, the extension will probably assume a wider range—in fact, the entire rebuilding of the hospital has been proposed. In addition to the £22,942 subscribed, the Earl of Leicester, Lord-Lieutenant of Norfolk, has also offered £13,000 to an endowment fund.

NORTHERN COUNTIES ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.—The Winter General Meeting of this Association will, by permission, be held in the Board-room of the Guardians, Morpeth, on 16th January at 2 P.M. After the consideration of a resolution of Committee, passed on the 12th ult.—viz., "That it be a recommendation of the Committee to the members to support the memorial of the North Western Association of Medical Officers of Health as to the tenure of office by Medical Officers of Health," the following papers will be read: "The Isolation of Cases of Infectious Disease," by Dr. R. Elliot; "Damp Houses," by Mr. Wm. Clarkson; "The Predominant Causes of Infant Mortality," by Dr. J. C. Reid; "House Air and Towns' Water," by Dr. R. Elliot. Dinner will be provided at the Queen's Head Hotel at 4 P.M.

ARTISANS' DWELLINGS ACT.—The Lords of the Treasury have refused to advance a loan of £1000 to the Corporation of Dublin for preparing an improvement scheme, and carrying out works under the Artisans' Dwellings Act, on the plea that there was no certainty that the works would be proceeded with. It has been stated as an explanation of this refusal that the Treasury only grant loans for such works as there is a rate levied for, but not for works in prospective.

WEST KENT MEDICO-CHIRURGICAL SOCIETY.—The fourth meeting, twenty-first session, of this Society was held on Friday evening, January 5th, at the Royal Kent Dispensary, Greenwich-road; Dr. Creed (president) in the chair. Dr. Hilton Fagge read a paper on "Some Spasmodic Neuroses." The main object of this communication was to frame definitions of the less common spasmodic affections which might be both more general in their scope and at the same time more accurate than those given by writers on the subject. The author accordingly gave brief descriptions of—(1) solitary spasm, corresponding to convulsive tic; (2 to-and-fro spasm, or paralysis agitans; (3) cumulative spasm, represented by clonic wry-neck, but including similar affections of other parts of the body; (4) co-ordinated spasms—viz., chorea and athetosis; (5) spasms connected with particular voluntary movements—viz., writers' cramp, and numerous other varieties of spasm; (6) tonic spasms running a chronic course. Of these last, Dr. Fagge endeavoured to show that, with the exception of tetany and the spasms occurring in paralysed limbs, they were always associated with hysteria or dependent on reflex irritation. Under the former head he referred to cases of tonic wry-neck, and to the contractures of which Charcot has given such full descriptions; under the latter, he cited cases of trismus, and tonic wry-neck due to affections of the teeth.

Medical Appointments.

ANDERSON, J. K., M.D., has been appointed Medical Officer of Health for Arbroath, Forfarshire, vice Arrott, deceased.

BATTERBURY, R. L., M.B., M.R.C.S.E., L.S.A.L., has been appointed a Medical Officer to the Haverstock-hill and Malden-road Provident Dispensary.

BETTANY, G. T., B.Sc., has been appointed Lecturer on Botany at the Guy's Hospital Medical School, vice Stokoe, resigned.

BOULTON, G. S., L.R.C.P.Ed., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for No. 9 District of the Lincoln Union, vice Farrow, resigned.

BROWNE, W. J., L.R.C.P.Ed., L.R.C.S.I., has been appointed Medical Attendant to the Royal Irish Constabulary, Church-hill, co. Donegal, vice Maturin, resigned.

CALLAN, M., L.K.Q.C.P.I. & L.M., L.R.C.S.I., has been appointed Medical Attendant to the Royal Irish Constabulary, Castlebellingham, co. Louth, vice Trimble, resigned.

CAMERON, J., M.D., has been appointed Medical Officer and Public Vaccinator for the Hatfield District of the Thorne Union, and Medical Officer of Health for No. 3 Sub-district of the Thorne Rural Sanitary District, vice A. Cameron, L.R.C.P.Ed., deceased.

CLARE, F. C., M.R.C.S.E., L.S.A.L., has been appointed Assistant Medical Officer to the Suffolk Lunatic Asylum, Melton, vice King, resigned.

HALLSWORTH, A., M.R.C.S.E., L.S.A.L., has been appointed Junior House Surgeon to the Preston and County of Lancaster Royal Infirmary, vice Garner, resigned.

HEELAS, J., M.B., C.M., has been appointed a Medical Officer to the Haverstock-hill and Malden-road Provident Dispensary.

HOBBES, C. E., L.R.C.P.Ed., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for No. 5 District of the Evesham Union.

KIDD, H., L.R.C.S.I., has been appointed Medical Officer, Public Vaccinator, &c., for the Tullow Dispensary District of the Carlow Union, vice Hart, resigned.

LESLIE, P., M.D., L.R.C.S.Ed., has been appointed Medical Officer and Public Vaccinator for the No. 3 District of the Chailey Union, Sussex, vice Robinson, deceased.

LEWIS, J. R., M.B., C.M., has been appointed Resident House Surgeon to the Bristol Hospital for Sick Children, vice Gray, resigned.

LLOYD, M., L.R.C.P.L., M.R.C.S.E., has been appointed Medical Officer of Health for the Conwil District of the Carmarthen Rural Sanitary District, vice Davies, resigned.

MARSHALL, C. G., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer of Health for the Woodbridge Rural Sanitary District, at £50 per annum.

MATHESON, F., M.B., C.M., has been appointed Assistant-Surgeon to the Royal Dispensary for Diseases of the Ear.

MONTGOMERY, E. C., L.R.C.S.I., L.S.A.L., has been appointed Medical Officer for the Cookham District and the Workhouse of the Cookham Union, Berks, and Public Vaccinator for the Borough of Maidenhead, vice Plumbe, deceased.

NICHOLSON, W. R., M.R.C.S.E., L.S.A.L., has been appointed Assistant Medical Officer to the North Riding Lunatic Asylum, Clifton, Yorkshire, vice Purdon, resigned.

OLIVER, J., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for No. 3 District of the Southampton Incorporation of the Poor, vice Lawrence, resigned.

ORMSBY, J., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer for the Lower Mitton District of the Kidderminster Union, vice Brown, resigned.

POLLARD, F., M.D. (formerly Registrar to St. Thomas's Hospital), has been appointed Assistant-Physician to the Liverpool Infirmary for Children, vice Caton, resigned.

PRICE, C. R., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer and Public Vaccinator for the Parish of Walls and Flotta, Orkney, vice Murison, resigned.

PRINGLE, J., M.D., C.M., L.F.P.S.G., has been reappointed Medical Officer and Public Vaccinator for the Parish of Lismore and Appin, Argyleshire.

PRITCHARD, U., M.D., F.R.C.S., has been appointed Senior Surgeon to the Royal Dispensary for Diseases of the Ear, vice Harvey, deceased.

SMELT, F. H., L.R.C.P.Ed. & L.M., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Dymock District of the Newent Union, vice Scott, resigned.

STIRLING, Mr. W., has been appointed Apothecary to the County Infirmary, Kilkenny, vice Sheppard, resigned.

SUTTON, F., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer of Health for the Gainsborough Rural Sanitary District, at £100 for one year.

SWETE, H., M.D., has been appointed Public Analyst for Worcestershire, at £100 per annum.

THOMSON, Dr. W. A., has been appointed Medical Officer to the Copland Sudbury Cottage Hospital, vice Saunders, resigned.

WARNOCK, H. T., L.K.Q.C.P.I. & L.M., L.R.C.S.I., has been appointed Medical Attendant to the Royal Irish Constabulary, Ballintra, co. Donegal, vice Robinson, deceased.

WATSON, C. S., M.B., C.M., has been appointed Resident Medical Officer and Secretary to the Bournemouth General Dispensary and Cottage Hospital, vice Johnston, resigned.

Births, Marriages, and Deaths.

BIRTHS.

CHARTERIS.—On the 8th inst., at Blythswood-square, Glasgow, the wife of Matthew Charteris, M.D., of a son.

GRIFFITHS.—On the 8th inst., at Upper Fitzwilliam-street, Dublin, the wife of Dr. Handsel Griffiths, of a son.

HAY.—On the 6th inst., at The Grange, Maryhill, Glasgow, the wife of Alexander Hay, M.D., of a daughter.

HEWLETT.—On the 7th inst., the wife of John C. Hewlett, Esq., of The Ferns, Hornsey, and Cree Church-lane, Leadenhall-street, of a daughter.

KENDALL.—On the 2nd inst., at Kidsgrove, the wife of Walter B. Kendall, L.R.C.P.Ed., of a daughter.

MACAULEY.—On the 31st ult., at Hatfield-Broad-Oak, Essex, the wife of William Robert Macauley, L.K.Q.C.P.I., of a daughter.

MORE.—On the 7th inst., the wife of James More, M.D., of Rothwell, Northamptonshire, of a daughter.

MORRIS.—On the 9th inst., at Somers-place, Hyde-park-square, the wife of James Morris, M.D., of a daughter.

MARRIAGES.

DEANE-BUTCHER—BAZETT.—On the 4th inst., at St. Mary's, Reading, by the Rev. A. Bazett, assisted by the Rev. G. J. Tubbs, W. Deane-Butcher, to Fanny, daughter of Colonel Bazett, of Reading.

SHAW—RIDGWAY.—On the 3rd inst., at the Chapel Royal, Savoy, Thomas Claye Shaw, M.D., to Hannah Gratrix, daughter of Isaac Ridgway, Esq.

DEATHS.

ARROTT.—On the 22nd ult., at Arbroath, David Arrott, M.D., aged 67.

BECK.—On the 6th inst., at Portland-place, Thomas Snow Beck, M.D., aged 63.

BEWLEY.—On the 4th inst., at Kingsland-road, Charles Bewley, M.R.C.S.E., aged 56.

HAINES.—On the 28th ult., at Lansdown, Somersetshire, George C. Haines, M.R.C.S.E., aged 88.

HUMPHREYS.—On the 30th ult., at Bonhill, Dumbartonshire, James Humphreys, L.F.P.S.G., aged 82.

MERCER.—On the 1st inst., at the East Riding Asylum, Beverley, N. G. Mercer, Esq., M.D., Superintendent, aged 35.

MORGAN.—On the 25th ult., at Levailyreagh, co. Down, Peter Morgan, L.F.P.S.G., aged 53.

MURPHY.—On the 4th inst., at Nottingham-place, Regent's-park, Edward William Murphy, M.D., late Professor of Midwifery at University College, aged 74.

TOWERS.—On the 7th ult., at Hawkshead, James Towers, Surgeon, aged 30.

VARDY.—On the 24th November, at Rothbury, Northumberland, Robert Vardy, M.R.C.S.E., aged 52.

WILKIN.—On the 15th ult., at Blaney, Enniskillen, James Wilkin, late Assistant-Surgeon, Army, aged 84.

[N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*]

BOOKS ETC. RECEIVED.

Dr. Dobell's Reports on Diseases of the Chest.
Monthly Microscopical Journal. January.
Fox's Atlas of Skin Diseases. Part 14.
Hutchinson's Illustrations of Clinical Surgery. Fasciculus 6.
The Popular Science Review. January.
Ziemssen's Cyclopædia of the Practice of Medicine. Vol. VII.
Quarterly Journal of Microscopical Science. January.
Bentley and Trimen's Medicinal Plants. Part 16.
Dublin Journal of Medical Science. January.

CAMBRIDGE NATURAL SCIENCES TRIPOS EXAMINATION.

MONDAY, DECEMBER 4TH, 1876.

QUESTIONS IN HUMAN ANATOMY.

Describe the articular surfaces of the tibia, fibula, and astragalus, with especial reference to the mechanism of the ankle-joint.

Describe the incus of the human ear and its connexions. From what portion of the embryonic cranial elements is it derived, and to what bone in the cod-fish is it supposed to correspond?

Give the anatomy and structure of the human chordæ vocales and of the mucous membrane covering them. How are they influenced by the several muscles of the larynx? What is the theory of their action as vocal organs? By whom was that theory propounded, and on what experiments was it based?

Point out the differences between the first and seventh ribs in man, and state the significance of these differences in relation to the mechanism of respiration.

Give the structure, development, and function of the human iris, and trace the blood-current throughout to and from the heart. How has the course of the blood to and from the eye been modified by the development of the organ?

Describe the long flexor muscles of the fingers and thumb in man, and compare them with the corresponding muscles of the toes. Assign causes for the differences between them in the two limbs, and state what peculiarities they present in man.

Give the anatomy of the crucial ligaments of the knee and their office. What are the conditions as to tension of each of the several ligaments of the knee in the flexed and in the extended position? and what relation have these conditions to the movements of the knee?

How do the fangs of the several molar teeth differ? Give reasons for these differences. How do the teeth of man differ from those of the ape? Give the structure of enamel.

Describe the velum interpositum and the choroid plexuses of the human brain, and state their relations to surrounding parts and to the mode of development of the brain. What purposes do they serve?

Describe the human os ilii. Mention the features which distinguish the pelvis of man, and show its adaptation to the erect posture.

Name the muscles which combine in the movement of raising the arm, with the nerve-supply to each. State the action of each upon the humerus, or scapula, or both, in that movement.

Give an account of the bloodvessels of the heart in man, and of the circulation through the heart. What relation to the general circulation has the coronary sinus in early fœtal life, and by what changes is that relation lost?

Give a description of the human cæcum (including the minute anatomy of its mucous membrane) and of its development, tracing its passage during development to the right iliac region.

Enumerate the parts seen in a dissection of the human palm (not including the thumb), and point out the adaptation of the several structures to the purposes served by them.

Give a sketch of a transverse section (slightly magnified) of the spinal cord, its membranes, and the vertebral canal at the middle of the back. Trace the course of motor and sensory impressions through the cord, to and from a nerve joining at this part.

Trace the branches of the ophthalmic division of the fifth pair of nerves. State the effects which would follow upon its division, and give an explanation of them.

In what respects is the form of the femur disadvantageous for bearing weight, and how is the bone substance disposed so as to increase its strength?

In what respects do the venous channels within the skull differ from ordinary veins, and what reason can you assign for these differences?

There was in addition a *viva voce* examination; and on a separate day a part was assigned for dissection to each candidate, and he was requested to write a description of it, and to make comments upon the function and functional adaptation of the several structures.

Notes, Short Comments, and Answers to Correspondents.

ANTI-VACCINATION ARGUMENTS.

Viator.—Recent experience has shown that while the causes of small-pox exist in full force, as in small-pox hospitals, they are rendered powerless by a second vaccination. As to the "immorality of inflicting a certain disease to avert a '*very uncertain*' one," the answer is that small-pox is very certain to happen to the great majority, probably 90 per cent., of an unvaccinated population. Professor Newman shows a woful want of knowledge and judgment when he says that no one can assert that it is desirable to stamp out small-pox by vaccination, "for it is better to throw out a disease by the skin than to nurture it in the vitals." The more small-pox is thrown out by the skin, the more fatal the case. This is one of the best attested facts in medicine. It is unfair to say, without qualification, that "THE LANCET admits that the majority of the fatal cases happen to vaccinated persons." This bald statement misleads. Nearly every rational person now has his children vaccinated, and very few vaccinated persons have the disease fatally; but vaccination once performed does not prevent the disease happening, and sometimes proving fatal. But it immensely reduces, first, the risk of catching the disease; and, next, the risk of it proving fatal. Whereas it used to be the rule for people to be marked with small-pox, it is now the exception; and whereas less than 6 per cent. of vaccinated persons having the same pox die, nearly 50 per cent. of unvaccinated persons having the small-pox succumb.

Mr. J. Pallister.—It is impossible to specify a sum, as so much depends upon age, qualifications, and nature of duties.

Dr. Campbell Black.—The book referred to has not been received.

NOTES IN A TURKISH MILITARY HOSPITAL.

WE have received some notes from Mr. Gordon, attached in a medical capacity to the Central Military Hospital, Sienetza, Bosnia, from which we make the following summary. The hospital is a large, two-storied, quadrilateral building, well elevated above the town, the doors of the various wards opening into the centre court. The upper storey is occupied by the wounded, and the lower devoted to the reception of hospital stores. There are beds or mattresses for 1000 patients; but after a battle all the floor-space is utilised, as also are some houses outside, so that accommodation can be provided for 2000 patients. The wards are about 100 feet long by 30, lofty, and capable of good ventilation were it not for the obstinate prejudice which the Turk entertains against fresh air. There is a stove in each ward; but on account of the scarcity of wood it is seldom lighted. The town is situate about four hours' journey from Yavor, where continuous fighting occurred up to the very moment of the armistice, and the wounded were brought in daily over rough, hilly roads either by bullock-carts or on horseback. The staff of the hospital comprises a médecin en chef, an Armenian (Christian), and ten surgeons, five of whom are Englishmen, the rest are German, Greek, and Turk. To each surgeon is allotted a dresser and dispenser, one or other of the latter also acting as interpreter. There is a fair supply of drugs, with a large quantity of carbolic acid. The dietary ranges from 1 to 10 : 1 to 4, consisting only of soup, rice, differently proportioned, then progressing until meat, fowls, eggs, and milk are reached. The wounds were nearly all rifle-bullet wounds, there being very few injuries caused by shell or bayonet. (We may here observe that this is in accordance with the medical experience of the Franco-German war, where the wounds by shell and steel bore a ridiculously small proportion to the total casualties; indeed a recent able and comprehensive history of the struggle, published in Germany, relegates the sword, bayonet, and the bomb-shell to the category of weapons whose effects are chiefly "moral.") At the Sienetza Hospital numerous cases of wounded fingers came under observation, although it does not seem to be thought that the Turkish soldiers mutilated themselves to escape service, as did the Servians. Wounds in the region of the shoulder are also very common. Injuries of the forearm came next in order of frequency, and it was observed that this class of wounds did extremely well. Several patients exhibited some extraordinary courses or tracks made by the bullet after striking the body. Considering the number of wounded, erysipelas is very uncommon. When the disease supervenes after wounds on the head, the face is immediately covered with a mask of mercurial ointment. When gangrene occurs, the wound is covered with chinchona powder and camphor, over which is placed charpie. As a general rule, all the wounded did well—a circumstance which our correspondent attributes to the "extremely abstemious habits" of Turkish soldiers.

Mr. James Murray.—Apply to Staith and Co., Long-acre; or Hardwicke and Bogue, Piccadilly.

Dr. C. F. Hutchinson.—The Rotherham Hospital and Dispensary.

SALICIN AND SALICYLATE OF SODA.

To the Editor of THE LANCET.

SIR,—If you think the following lines worth publishing, I shall feel obliged by your giving them a corner in your journal.

In his last paper on the Treatment of Acute Rheumatism by Salicin, in THE LANCET of October 28th, Dr. Maclagan says: "The advantage of the former (salicin) is that it is an excellent bitter tonic, and never causes troublesome symptoms, except in some rare cases such tinnitus aurium as results from a two- or three-grain dose of quinine The disadvantage of the latter (salicylic acid) is that it generally causes irritation of the throat, and frequently induces sickness; in one case I found it give rise to troublesome irritation of the bowels." I met with quite a contrary result in one of my acute rheumatic cases.

On June 12th I saw J. V——, aged eighteen, suffering from an acute attack of rheumatism. I learned from his mother that he had a similar attack about two years ago, and could not leave his bed for more than two months. I ordered twenty grains of salicin, to be repeated every three hours. I saw him again two days afterwards, after he had taken 180 grains of salicin. I found him free from fever, and so much free from pain that he could walk about in the room. Of course I was very much pleased with the result, and so were the patient and his relatives; but the patient complained of a feeling of nausea after taking each powder. As none of the writers on the action of salicin in acute rheumatic fever noticed this symptom before, I thought there must have been some mistake in making up the prescription. I inspected the remaining powders, procured from one of the first-class chemist's shops in the city, but failed to detect anything amiss. As there was still some stiffness about the joints, I advised him to take one powder every four hours. Next day his mother reported to me that her son was sick every time he took the powder, and could not be persuaded to take it any more. As the patient was very much improved, I advised him to discontinue the powders. Here I lost sight of him until the 6th of July, when I saw him suffering from another very severe attack of rheumatism, brought on by exposure to rains. I ordered him salicin again; but he refused to take it, as it made him sick on the former occasion. I then ordered him to take salicylate of soda, fifteen grains, every four hours. On the 13th of July he was quite free from pain and fever; in a word, was perfectly convalescent. Since that he is enjoying good health. Although salicylic acid (for the action of both the acid and its salt is identical) took a longer time to put the patient right, yet it induced no sickness—one of the troublesome symptoms ascribed to it by Dr. Maclagan. But salicin, though it cured the patient like a charm, induced both nausea and sickness: two troublesome symptoms not observed by the above physician in his eleven cases treated with salicin alone; but no tinnitus aurium, as observed by him.

I remain, Sir, your obedient servant,

Calcutta, Dec. 1st, 1876. R. G. SIRCAR, L.R.C.P. Edin., &c.

DR. AUSTIN FLINT ON PHTHISIS.

AT a meeting of the New York Academy of Medicine, held last month, Dr. Austin Flint presented a paper, detailing the results of his observation of cases of phthisis during a period of thirty-five years. It may be as well to state that the greater part of these are embodied in his work on Medicine. With regard to the medicinal treatment of the disease, Dr. Flint only says that he believes that cod-liver oil is useful, although not potentially curative, and that the hypophosphites and alcoholics are also useful. On the question of hygienic treatment he had arrived at the following conclusions:—In the large proportion of cases of chronic phthisis, benefit to a greater or less extent follows a temporary change of climate; change from sedentary to out-of-door habits is beneficial, perhaps more so than any other single remedial measure; change of occupation, because it gives rise to change of habits, is favourable; permanent change of residence is beneficial in certain cases; sea voyages exert a favourable influence in a large proportion of cases, sometimes very markedly so. It will thus be seen that no new facts or observations were recorded likely to prove of service to practitioners in this country, where phthisis is a scourge. At the same time all will fully recognise the earnestness and thoroughness of Dr. Austin Flint's work.

IN the list of contributors to the volumes of THE LANCET for the current year, the name of Sir Joseph Fayrer, K.C.S.I., was accidentally omitted.

Dr. Shearman.—We will publish an obituary of the late Mr. Parker next week.

TREATMENT OF DIPHTHERIA.

To the Editor of THE LANCET.

SIR,—Since Bretonneau published his remarkable treatise in 1821 on an epidemic which attacked the garrison of Tours, the treatment of this malady has attracted some considerable attention in this country.

I will now give a short account of the successful treatment of 76 cases, 56 of which occurred at Grahamstown during a severe epidemic which attacked that city in 1869. In each case I applied a strong solution of iodine to the false membrane; in mild cases once, in severe cases every six hours. After allowing the pigment to remain on for about the space of a minute, I directed the patient to hold a small quantity of the wash used by me in the throat for a few moments. On rejecting it the false membrane invariably came away. In young children I used a soft camel-hair brush to remove the membrane. I never used force in any case to detach it, as practised by Loiseau. Although the exudation re-formed, I found after each application the quantity was lessened and altered in character, being thinner and more fragile. The strength of the iodine I use, even for the youngest child, is: iodine, one drachm to two scruples; iodide of potassium, two scruples; rectified spirits of wine, one ounce. I use a brush made by Messrs. Maw and Co., which is fixed into a vulcanite stem. It possesses many advantages, being durable, very flexible, and moderate in price. The wash consists of a solution of chlorine and hydrochloric acid gas. It is prepared thus:—Take of chlorate of potash, eight grains; put it in a pint bottle, with one drachm of pure hydrochloric acid, cork the bottle and shake it; as soon as the chlorate of potash is dissolved, add one ounce of distilled water, recork the bottle and shake it; repeat the process twice more, and then fill it up with water. I use equal parts of this solution and water; the addition of two drachms of tincture of myrrh to half a pint makes it much more agreeable.

The internal treatment of this malady I consider most important. The one I always adopt is to administer the following mixture from the commencement of the attack:—Chlorate of potash, one drachm; dilute nitro-muriatic acid, one drachm and a half; compound tincture of chinchona, three drachms; water to six ounces: one ounce to be taken every two or three hours, and dose in proportion to children. I believe chlorate of potash to have a special influence in preventing the formation of plastic material. When the submaxillary and neighbouring glands are affected, I order linseed-meal poultices to be kept constantly applied. Inhalations of hot vinegar-and-water, in the proportion of one to three, I have often found very serviceable. In every case I ordered the patient to be well supplied with good, nourishing, digestible food, such as game-soup, beef-tea, chicken-broth, warm milk, eggs cooked and raw, and as much fresh-gathered fruit as wished for. Pontac and sound port were freely administered. In most of my cases the gangrenous odour emitted from the throat was almost intolerable. In very few of the cases was albumen present; but I noticed in several that the urine turned to a reddish violet on the addition of nitric acid and heat, which I suppose was due to the presence of purpurine. The highest temperature I obtained, taken by thermometers tested at Kew, was 105°. Another fact worth mentioning is, that in only one case was any paralysis of the soft palate present; but in many cases there was hoarseness and weakness of the voice, which lasted some little time.

I remain, Sir, yours &c.,
F. KNOWLES,
Late Surgeon to the Poplar Hospital.

Ipswich, Dec. 26th, 1876.

Dr. Woodward will have seen our notice of the case of the Worcester Dispensary medical officers in last week's LANCET. We await with some curiosity an explanation by the Committee of a procedure so peculiar and indefensible, and congratulate him in the meantime on the defence which he was able to make on the last occasion when the Committee frivolously found fault with him.

M.D. has misapprehended the drift of the article. If our correspondent wishes us to publish his letter, he must authenticate the same with his name.

THE SYDENHAM SOCIETY.

To the Editor of THE LANCET.

SIR,—Can any of your readers inform me if any book promised by the Sydenham Society has been issued for the year 1876? I understand that subscriptions for 1877 are due, but have not received any work for last year.

Yours &c.
A SUBSCRIBER.

Jan. 8th, 1877.

EXPERIMENTS ON THE INFECTION OF DISEASES OF ANIMALS.

THE investigations of Dr. Burdon-Sanderson into pleuro-pneumonia and foot-and-mouth disease, which have been proceeding since June last, have been reported on to the Royal Agricultural Society by that physiologist. In respect of the latter disease the results of experiments as to the modes of infection have been, so far, of a negative character. With regard to the further prosecution of the inquiry, Dr. Burdon-Sanderson explains that it is intended (1) to make experiments with a view to the testing of several modes of infection not yet tried; (2) to bring animals found by previous experiment not to be susceptible of infection by immediate contact, into relation with diseased animals, by placing them in a stable with animals of the same class; (3) to slaughter other animals for the purpose of ascertaining whether or not, in the absence of any appreciable signs of infection, the lungs or other internal organs exhibited any latent changes corresponding to undeveloped stages of the disease. An additional grant of £250, to be devoted to the further pursuit of these important researches, must be considered as wisely apportioned.

Dr. Barton (Ramsgate) is thanked for his letter, which is too lengthy for insertion.

MEDICAL ATTENDANCE ON SCHOOLS.

To the Editor of THE LANCET.

SIR,—Four years ago I accepted the post of surgeon to a large middle class College at the same salary as my predecessor; but feeling that the remuneration is far from sufficient for the services rendered, I seek information from you, so that I may have some good authority for making a claim for higher pay. I may state that the number of boys is about 230; this with the staff of masters and servants makes their number up to about 300. The boys pay £51 per annum. Everyone within the walls of the College is entitled to medical attendance and medicines free. The doctor supplies all the medicines he prescribes. The College is half a mile from his house, and he is expected to attend three days a week, and daily if necessary. Permit me now to ask you the following questions:—

1st. What would be a fair lump sum per annum for such attendance?

2nd. Would not a payment of so much per head per annum for boys, masters, and servants respectively be more satisfactory, and what would be a reasonable rate to ask for?

3rd. Can you give me any information as to the pay received by some of my professional brethren who hold similar appointments, or can you give me some of their names in order that I may communicate with them on the subject?

I am, Sir, yours faithfully,
T. C.

December, 1876.

*** The result of our inquiries on the subject of our correspondent's letter is the conviction on our part that he has raised a question altogether reasonable, and indeed rather urgent. It requires little imagination to understand the anxiety and trouble which the medical attendants of schools must have in connexion with the treatment of boys under their care, away from home, involving correspondence, consultation with family doctors, &c. &c. There seems to be every variety of payment and mode of payment, there being no uniformity unless it be in the entire insufficiency of the sums paid, under the capitation principle, or the fixed salary principle, for the work done. We shall gladly insert a few letters on this subject, in hope of promoting a more satisfactory state of things, or of showing that we are wrong in our estimate of the existing rates. Correspondents will oblige by condensed information on the system of payment, the number included in their contract, the average number of cases they have to treat, the right to charge extras, &c., with suggestions as to the best mode of payment.—ED. L.

L. R. C.—A licentiate of the Apothecaries' Society has no right to put "surgeon" after his name on his door-plate. We suspect it would not be easy, however, to "compel" him to remove the word.

Dr. J. S. Cuthill.—Yes.

LOCKED HEADS.

To the Editor of THE LANCET.

SIR,—The comparative rarity of this form of irregular labour leads me to publish a case which has recently come under my notice. I find recorded six cases somewhat similar to the one I am about to describe, but not one of these coincides with the latter in detail, nor was the treatment the same. Churchill (fourth edition) mentions one by Dr. Christie, of Aberdeen; Ramsbotham (fourth edition) mentions one by Dr. Fergusson, of Dublin, and also one by Mr. J. Alexander, jun.; a third by Mr. Allen, and a fourth by Mr. Eaton of Windsor; the sixth is published in THE LANCET of Oct 9th, 1875.

Mrs. C——, aged eighteen, married eight months, was twelve hours in labour, when the midwife in attendance sent for me, and requested that I might bring instruments. On arrival at the house the professional midwife whispered to me "locked heads," which I naturally at first was inclined to doubt, but which on examination I found to be the fact. The body of the first child was delivered as far as the neck, while the head of the second child rested on the perineum, and below that of the first child. Thus the head of one fitted along the neck of the other. My first impulse was to decapitate the first child, as was done in the case referred to in THE LANCET; but on consideration I decided to try delivering the second child with forceps, believing this to be practicable because of the mother's full development and roomy pelvis, as well as the compressibility of the neck of one child against the head of the other. I applied the short forceps without difficulty, and during the next expulsive efforts of the mother the second child was born simultaneously with the first.

The peculiarities of this case were—1st. The position of the locked heads, which all the efforts of the mother failed to overcome. 2ndly. The easy delivery of both children by the forceps applied to the head of the second child—a mode of treatment, I believe, not hitherto adopted.

Yours truly,
J. H. REYNOLDS, M.B.,
Army Medical Staff.

King William's Town, South Africa, Nov. 22nd, 1876.

MEDICAL OFFICERS OF HEALTH AND PRIVATE PRACTITIONERS.

Nemo.—1. The workhouse and workhouse infirmary are solely for the destitute. The cases our correspondent refers to as admitted to the workhouse infirmary could only be so admitted by stretching the law, and throwing a charge upon the workhouse medical officer, who is also medical officer of health, as unjust as illegal.—2. The medical officer of health, having been applied to in his official capacity in respect to precautionary measures, had hardly a choice but to act as he did; for the application to him threw upon him the whole responsibility, so far as the public is concerned, of obviating ill-consequences. The application constituted him also the judge of the sufficiency of any precautionary measures taken. It is to be regretted that, according to our correspondent, the medical officer of health should have acted and spoken so brusquely in the performance of his duties; but it is obvious that he was being called upon in respect to the cases to undertake a charge which it was no part of his duties to undertake, and for which, as it was in relief of well-to-do private establishments, he should have been remunerated in some form. The medical officer of health, indeed, has good ground of complaint that his position and functions should be so imperfectly understood by his professional brethren that they should (however unintentionally) make a convenience of him in the fashion indicated. When a private practitioner has recourse to a medical officer of health for help not strictly within the scope of that official's duties, it is for that practitioner to be careful that the interests of the medical officer of health are not sacrificed in the interests of private individuals. "Nemo" is right in thinking that the difficulty arises from duties like those of a medical officer of health being performed at the same time that the medical officer of health is engaged in private practice. Nothing but the greatest consideration on all sides, and some forbearance, perhaps, can prevent misunderstandings like those which have grieved him. "Nemo," however, is wrong in concluding that he will not report cases of infectious disease to the medical officer of health again. On reconsidering this point, in the light of the medical officer of health's duties as set forth in the regulations governing them, our correspondent, we think, will see how helpful the medical officer of health may be to him in some cases, and he to the medical officer of health. The core of the difficulty in this case rests with the sanitary authority having made no provision of hospital accommodation for non-pauper cases of infectious sickness.

Mr. Josiah Williams, (Bosnia.)—At this distance of time, our correspondent can scarcely expect us to revive the controversy.

Dr. Whitcombe is thanked.

Mr. S. W. F. Kenny.—It is against our rule to recommend a particular physician or surgeon.

DYSENTERY PRECEDED BY RIGOR.

To the Editor of THE LANCET.

SIR,—As dysentery is but rarely preceded by severe rigor, the following case may be of some interest.

Wm. G——, a blacksmith by occupation, and aged about sixty-eight, was previous to this attack of a healthy nature, if we except rheumatic pains in his back and legs during damp weather, and a slight inguinal hernia, which he has always been able to reduce with his finger, and has consequently caused but little inconvenience. His head is remarkable, as a bony tumour, about the size of half an orange, is situated in the place where in the normal head would be situate the posterior fontanelle. This has never caused him any annoyance, and has existed as long as he can remember. The situation of his house is damp, and, in addition, there is a hole of standing water immediately in front of the door, used for business purposes. I was not called on until the fourth day of his illness, the commencement of which was described to me as follows:—For eight months there had been a tendency to constipation. Three months ago some blood was discovered in his stools, but it was removed by a dose of castor oil. The present phase commenced while working at his forge by a cold sick feel and violent shivering; he then went into his dwelling-house, and, sitting before the fire, drank some hot milk. In a short time he had a very loose motion; a few moments after this vomiting came on quickly, followed by a severe rigor, which lasted about twenty minutes, and was very intense, causing him to shake on the bed and his teeth to chatter, and lasting until he was given some hot punch, and hot jars were applied to his feet. After the rigor came the dry stage, lasting for some minutes, during which time his skin was burning hot, and dry, with flushed face; this was followed by a third stage of profuse perspiration, after which he slept for some hours. Next day he was suffering from a sharp headache and frequent attacks of diarrhœa, which continued on into the night. This state continued until the day preceding that on which I was called in, when for the first time blood was discovered mixed with the motions. It was at first present in but small quantities; but late in the night, during which he had been at stool nearly every half-hour, the motions became almost pure blood mixed with a little mucus. Of these latter kind there were seven up to 2 P.M., at which time I first saw him. He was then suffering from constant headache, great thirst, coated tongue, loss of sleep for three nights, a weak and irregular pulse of 88, and temperature in axilla of 99°; normal respiration; abdomen tympanitic, but not painful on pressure; lungs sound; heart sound, but weak. I immediately gave him a lead-and-opium pill, and administered an enema of starch, turpentine, and laudanum, which was retained about four minutes. I then caused a linseed poultice to be placed on his abdomen, directing it to be kept there for four hours, and ordered the following powders:—Compound ipecacuanha powder, nitrate of potass, of each three grains; gum, five grains (which I believe are those recommended by Trousseau): one to be given every second hour until sleep should be produced, which happened about 11.30 P.M., when the patient fell into a peaceful slumber, having previously had three motions, which were but very slightly tinged with blood; the headache was gone; tongue much cleaner; pulse 80; temperature 98·6°; abdomen less tympanitic; skin moist; and felt very much improved." Next night he slept well, pulse full and strong, and motions natural. The following day there was a slight recurrence of the hæmorrhage from the bowels, which, however, ceased on his taking a lead-and-opium pill and a Trousseau powder every four hours. Next day, as he had a dull and heavy feel, I discontinued the powder, except one at bedtime. His urine, which had hitherto been scanty and dark in colour, now showed decided signs of improvement; and though he for some time felt some pain at stool, he went on steadily improving, and is now quite recovered. His diet throughout was milk, arrowroot, rice, beef-tea, and port wine.

I am, Sir, yours truly,

Ashfield, county Meath, Jan. 1877. CHARLES F. MURRAY, M.B.

Orion.—A general practitioner may fairly claim a fee in cases of consultation; we mean where he meets a consultant, supposing the patient to be able to pay it. But such a fee, like the physician's, should be regarded as an honorarium, not to be recovered by legal process, but given graciously and gratefully by the patient.

THE ACTION OF ERGOT IN TEDIOUS LABOUR.

To the Editor of THE LANCET.

SIR,—I have watched with some interest the discussion in your columns on this subject, and from it I conclude that the treatment of the second stage of labour differs in some respects with us as compared with that which appears to be the custom with obstetricians in the south. We, here, use ergot, and I think I may venture on saying our experience warrants us in recognising it as a most valuable drug, and as the best oxytoric.

As a stimulant for defective uterine action, I consider that its use is confined to those cases in which this action is simply defective—not from general exhaustion, but from weakness of the uterus itself. For it is a fact that the uterus seems to become exhausted alone; even from the onset of labour in some cases its action is enfeebled, while the general strength is almost, if not quite, unimpaired. In such cases ergot is specially serviceable, and I have never been disappointed with its action. Under such circumstances it not only prolongs the duration of the pains, but strengthens them as well, in this way aiding the enfeebled womb to expel its contents; therefore the non-efficiency of ergot in the hands of some may be due to its being employed in those cases where the delay in the natural process of delivery is the result of simple general exhaustion of the patient. It seems as unreasonable to expect a "used-up" womb to respond to the call of any oxytoric as to expect an exhausted labourer to toil on with renewed and increasing vigour by the help of stimulants alone. While watching the effect of ergot I have found that in some of those cases of exhaustion to which I refer above, this drug seemed to arrest the enfeebled action of the uterus; and this may be the explanation of "L.R.C.P.'s" disappointment in the action of ergot, and of which he speaks in his letter to you, published in THE LANCET of the 16th ult., as "exactly opposite" to its usual effect.

I think it is a well-established fact that the employment of ergot, either as a uterine tonic or as a direct excitant in parturition, has an injurious effect upon the offspring unless a speedy delivery is accomplished after its administration. At the onset of general exhaustion of the patient, I find it safer both for mother and child to apply the forceps, and effect the delivery by their aid. In April, 1874, in another journal, I explained my reasons for adopting this treatment, and with increased experience I have seen no cause since then to alter my views.

In regard to post-partum hæmorrhage I am disposed to say that we employ the forceps here more frequently than seems to be the practice in the south, and I would venture to suggest that this difference in practice may explain why post-partum hæmorrhage so rarely troubles us, while it seems so frequently to complicate confinements in England.

I am, Sir, yours sincerely,

HUGH MILLER,
Physician-Accoucheur, Glasgow Maternity Hospital.

Glasgow, Jan. 2nd, 1877.

To the Editor of THE LANCET.

SIR,—In answer to the question of "L.R.C.P." in your issue of the 16th December, which I have only just seen, I can say for myself, after carefully watching the effects of ergot in tedious labours for some seven years, that I entirely agree with him as to its value being overrated—not with regard to causing contraction of the uterus, but certainly as to hastening the expulsion of the child, or the contents of that organ, as the case may be. My experience is that it very seldom indeed fails to excite contraction if a reliable preparation of the drug be used; but usually the patient describes the effect of a dose as causing a good deal of *continuous* pain, but that it gives her no real *help* in her labour. In tedious labours I now always rely much more on hard friction with the hand over the fundus between the pains, and steady firm pressure during each one's continuance with both hands. I find this kind of help always appreciated by the patient (whose opinion ought to be of value on such a very practical point), and, for myself, find it infinitely more reliable in completing labour than the comparatively round-about process of giving ergot.

I am, Sir, your obedient servant,

Crouch End, Dec. 20th, 1876. FRED. OXTON, M.D.

POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

To the Editor of THE LANCET.

SIR,—I shall be obliged if you will permit me to inform members of the Poor-law medical service that one of the objects of the Association, that of giving information and advice to such Poor-law medical officers as apply for the same, is steadily, though unostentatiously, carried out, not only by myself, but by our Honorary Secretary, Mr. John Wickham Barnes. We are continually receiving letters from all parts of England and Wales, and frequently from officers who have not joined our ranks, asking our advice &c. The enclosed correspondence will show the nature of the information required, and the favourable result we frequently achieve. The applicant in this instance was the medical officer of a large provincial urban workhouse. It will be thus seen that the operations of the Association are not limited to public meetings and deputations to Cabinet Ministers.

I am, Sir, yours obediently,

JOS. ROGERS,
Chairman of Council, Poor-law Medical Officers' Association.

Dean-street, Soho, Jan. 3rd, 1877.

TRANSFUSION.

To the Editor of THE LANCET.

SIR,—I regret that the report of the case of transfusion at Bethlem Hospital was published without my knowledge, as it contains some inaccuracies. The case was selected by me for the experiment in consequence of being somewhat similar to the one operated on successfully by Dr. Roussel at Vienna. I cannot say that I considered transfusion was "clearly indicated," but thought it a fair case to make the experiment on. At present I am unable to endorse the statement that the result has been very encouraging. The patient is no worse; but the improvement, if any, is infinitesimal.

Your obedient servant,
W. RHYS WILLIAMS, M.D.,
Resident Physician.

Bethlem Hospital, Jan. 10th, 1877.

OUR Paris correspondent's letter on Typhoid Fever &c. is in type, and will appear next week.

Mr. J. Diver is thanked. Such placards as that enclosed are beneath notice.

SUGGESTION REQUIRED.

To the Editor of THE LANCET.

SIR,—Can any of your readers suggest through your valuable columns any remedy suitable for the following case under my care. A lady, apparently in perfect health, suffers from urticaria. The rash appears and disappears very suddenly, comes out chiefly at midnight, and more or less during the day, covering the whole surface of the body. The irritation is excessive, and the rash disfiguring. There seems to be no legitimate cause for its appearance, and I have tried various modes of treatment, together with external applications, including arsenic, iodide of potassium, &c., also tepid salt-water baths, and sea air, without avail, for fully four months.

I am, Sir, yours truly,
A SUBSCRIBER.

January, 1877.

COMMUNICATIONS not noticed in the current number will receive attention in our issue of the ensuing week.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. G. Johnson, London; Dr. Brown-Séquard, Paris; Dr. W. Rhys Williams, London; Mr. Maunder, London; Mr. C. Hawkins, London; Mr. Clay, Birmingham; Mr. Macnamara, London; Dr. Cockle, London; Dr. Arnison, Newcastle; Dr. Hutchinson, Scarborough; Mr. Marchant, London; Mr. Mitchell, London; Mr. Kenny, Ballinrobe; Mr. Ellison, Birkenhead; Mr. Murray, Glasgow; Dr. Ross, Washington; Mr. Boddy, Camberwell; Dr. R. Neile, St. John's-wood; Mr. Campbell, Liverpool; Mr. H. Blunt, Rotherham; Mr. Lush, Market Lavington; Mr. D. Mann, Manchester; Mr. Blyth, Barnstaple; Mr. Cooper, Leytonstone; Dr. Rayne, Eccles; Dr. Griffiths, Dublin; Mr. W. R. Smith, Sheffield; Mr. Pallister, York; Messrs. Oetzman and Co.; Mr. Hey, Hull; Dr. Woodward, Worcester; Dr. Maunsell, Dublin; Mr. Walker, Spondon; Mr. Whitcombe, Birmingham; Dr. Mayne, Dalton; Mr. Shepherd, Rotherhithe; Dr. Coghill, Ventnor; Mr. Millikin, London; Dr. Caport, Brussels; Dr. Woods, Killarney; Mr. Hodson, Beverley; Mr. Wharry, London; Mr. Harwitz, London; Mr. J. W. Barnes, London; Mr. Furneaux, Newark; Mr. Bush; Mr. Pierce; Dr. Ayres; Dr. Hewetson, Leeds; Mr. Mercier; Mr. Overy; Mr. Barnett, Wigan; Mr. Elliott; Mr. Parker, York; Dr. Bramwell, Burnley; Mr. Johnston, Bournemouth; Mr. Mylrea; Mr. Turnour, Norwich; Dr. Pollard, Liverpool; Rev. W. Read, Worthing; Dr. March, Wandsworth; Dr. Barton, Ramsgate; Mr. Kean; Dr. Davies, Maesteg; Dr. Bradbury, Cambridge; Mr. Wheeler; Dr. Lloyd, Tregaron; Mr. Gale; Mr. Austin; Dr. Latham; Mr. Green, Fordingbridge; Mr. T. Chambers, Hailsham; Mr. Edmondson; Mr. Wood, Grays; Mr. Taylor, Filey; Mr. Robinson, Selhurst; Mr. Clarke, Eye; Mr. Forder, Leeds; Mr. Lewis, Bath; Mr. James; Mr. Hutton, Axminster; Mr. Barrow, Westerfield; Mr. Carlyon, Oswestry; Mr. Morrison; Mr. Palmer, Lydney; Mr. Henry, Dunstable; Mr. Stephens, Stourport; Mr. Harris; Mr. Riches, Yeldham; Amateur; Petrarch; J. J., Darlaston; S. R. G.; M.D.; A Resident M.D.; Scotus; M.D.; A Subscriber of Long Standing; Oxon.; C. D. E.; L. R. C.; A Subscriber; New Year; Medicus; Scalpel; &c. &c.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Shearman, Rotherham; Dr. Griffin, Kilkee; Mr. Barber, Wallingford; Mr. Kenny, Listowel; Dr. Sheen, Cardiff; Dr. Beverley, Norwich; Mr. Hayward, Liverpool; Dr. More, Kettering; Mr. Percival, Northampton; Mr. Clarke, Sacriston; Dr. Granger, Glasgow; Mr. Farrow, Lincoln; Dr. Watson, Mere; Mr. M'Callan, Edinburgh; Mr. Dymott, London; Dr. Ferguson, Ballincollig; Dr. Russel, Beverley; Mr. Clarke, Lynton; Mr. Tatham, Wilton; Dr. Coutts, Warsop; Dr. Dixon, St. Ives; Mr. P. Smith, Birmingham; Dr. Pritchard, Sittingbourne; Mr. Pery, Grays; Mr. Leaver, Stratford; Mr. Cooper, Bolton; Dr. Cumming, Edinburgh; Mr. Wallis; Mr. Sea, Taunton; Mr. Jennings, Coleford; Mr. Denning; Mr. Welch, Dorchester; Mr. Evans; Mr. Griffith; Dr. Harley, Saffron Walden; Mr. Burroughs, Sheffield; Dr. Milne, Glasgow; Mr. Johnson; Dr. More, Rothwell; Dr. Foote, Rotherham; Mr. Wooley, Heanor; Mr. Taylor; Mr. Searl; Dr. Whidborne, Topsham; Dr. Newman, Bowness; Dr. Waters, Liverpool; Surgeon, Stoke-on-Trent; S. M., Torrie; T. S. H.; C. W. D.; F. H. W.; C. E. T.; Medicus; Sigma, Tring; C. M. C.; O. N., Silchester; D. E. N., Wokingham; X. X.; Assistantship; Surgeon; X. Y. Z., Blandford; J. M., Wingham; N., West Smethwick.

Medical Record, Surrey Advertiser, Western Morning News, Examiner, Elgin Courant, Manchester Guardian, Daily Post, Newcastle Daily Chronicle, Bolton Evening Guardian, Pharmaceutical Journal, Welshman, East London Observer, Broad Arrow, Spectator, Leeds Mercury, Shield, Solicitors' Journal, Land and Water, and *Sunday Times* have been received.

METEOROLOGICAL READINGS

(Taken daily at 8 a.m. by Steward's Instruments.)

THE LANCET OFFICE, JAN. 11TH, 1877.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Wet Bulb.	Dry Bulb	Solar Radia. in Vacuo	Max. Temp. Shade	Min. Temp.	Rain-fall.	Remarks at 8 A.M.
Jan. 5	29·24	W.	45	46	...	54	45	0·03	Cloudy
" 6	29·35	S.W.	43	45	...	56	41	0·06	Raining
" 7	29·23	S.W.	48	53	...	53	43	0·39	Cloudy
" 8	29·54	S.W.	49	50	...	52	46	0·48	Raining
" 9	29·71	N.	48	49	...	53	47	0·68	Overcast
" 10	30·05	N.E.	42	42	...	48	41	0·02	Foggy
" 11	29·67	N.E.	39	40	...	40	39	0·60	Raining

Medical Diary for the ensuing Week.

Monday, Jan. 15.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
ST. MARK'S HOSPITAL.—Operations, 9 A.M. and 2 P.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
MEDICAL SOCIETY OF LONDON.—8½ P.M. Dr. Sansom: "Cases Illustrating Anomalous Conductions of Mitral Murmurs."—Dr. Leared (short communication), "On the Treatment of Tapeworm."—Dr. Dowse (short communication), "On Gangrenous Stomatitis, and its Clinical resemblance to Charbon."

Tuesday, Jan. 16.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.
ROYAL INSTITUTION.—3 P.M. Prof. Garrod, "On the Human Form; its Structure in relation to its Contour."
PATHOLOGICAL SOCIETY OF LONDON.—8½ P.M. The evening to be devoted to the exhibition of Specimens illustrating the Pathology of Visceral Syphilis. Specimens will be shown by Mr. J. Hutchinson, Drs. Clifford Allbutt, Greenfield, Gowers, Goodhart, Barlow, and others.—The Microscopic Specimens will be arranged ready for inspection at 8 P.M.

Wednesday, Jan. 17.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1½ P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.
LONDON HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.

Thursday, Jan. 18.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Dr. Wright, "On Metals, and the chief Industrial Uses of these Bodies and their Compounds."
HARVEIAN SOCIETY.—8 P.M. Mr. Ashburton Thompson, "On Goa Powder as an Internal Remedy."

Friday, Jan. 19.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
MEDICAL MICROSCOPICAL SOCIETY.—8 P.M. Annual General Meeting.—President's Address. (This and future Meetings of the Medical Microscopical Society will be held at the Century Club, 6, Pall-mall-place.)
ROYAL INSTITUTION.—8 P.M. Weekly Meeting.—9 P.M. Prof. Tyndall: "A Combat with an Infective Atmosphere."

Saturday, Jan. 20.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Mr. Ernst Pauer, "On the Nature of Music: the Italian, French, and German Schools" (with Pianoforte Illustrations).

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